DOCUMENT RESUME

ED 092 221 PS 007 282

AUTHOR	Robison, Helen F.; And Others
TITLE	Project CHILD.
INSTITUTION	Center for Urban Education, New York, N.Y.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	Oct 70
NOTE	113p.
EDRS PRICE	MF-$0.75 HC-$5.40 PLUS POSTAGE
DESCRIPTORS	Auditory Discrimination; *Compensatory Education Programs; *Curriculum Development; *Disadvantaged Youth; Educational Change; Intervention; Language Development; Play; *Preschool Curriculum; *Program Descriptions; Teacher Behavior; Teacher Education; Teaching Methods; Teaching Quality

ABSTRACT

This document described Project CHILD, a program of educational change and curriculum development for disadvantaged prekindergarten and kindergarten children. The historical part of this report indicates that the project began in 1966 with a small-scale study of teacher behavior and children's responses in a few classrooms in a Harlem school district. This study led to the development of a reserach instrument and suggested the overwhelming need for program improvement. In 1966-'67 the curriculum was compiled in rough form and implemented on a very limited basis. Data from this period focuses on language development, a major emphasis of the curriculum. 1967-'68 was a year of broadening the implementation effort, as four teachers used the program with in-depth training. The curriculum was revised during this year, as it became a 2-year intervention approach. The field study was backed up by much data collection, including a detailed project to determine intervention effects on auditory discrimination. By 1968-'69 the program had developed a comprehensive curriculum package, and the report focuses on problems encountered in changing teachers' methods and attitudes. A content analysis of the curriculum discusses internal inconsistencies on theoretical issues, language arts training, views of play, teaching strategies, motor development, and behavioral objectives. Appendix A is an independent assessment of the curriculum, Appendix B describes the goals, procedures, and history of the parent project, and Appendix C is a description of the curriculum prepared for an educational conference. (DP)

P76

ED 092221

U S DEPARTMENT OF HEALTH.
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SCOPE OF INTEREST NOTICE
The ERIC Facility has assigned this document for processing to: PS | UD
In our judgement, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

Project CHILD

School Division
with the assistance of
Helen F. Robison

October 1970

PS 007282
PS 007 282

Center for Urban Education
105 Madison Avenue
New York, N. Y. 10016

TABLE OF CONTENTS

History of Project CHILD...1

Analysis of the Curriculum Content...............................45

Appendix A: Independent Assessment of Curriculum

Appendix B: The Parent Project

Appendix C: Evolution of a Curriculum to
Heighten Intellectual and Language Development

HISTORY OF PROJECT CHILD

Project Child began in the spring of 1966 as a very small-scale project to explore the classroom needs of prekindergarten children in the central Harlem School in New York City. This initial exploration suggested several fruitful avenues of study and these studies were extended and implemented during the 1966-67 academic year in nine prekindergarten classes in four special service schools within the same central Harlem school district. The goal of Project Child was to design new and more effective curricula for "disadvantaged" children in the early grades. The initial studies provided much information about the child population in these classes, and about teacher styles and the curriculum in use. Later explorations developed Project staff, teacher-school relationships, ways of working with teachers in the classrooms and in inservice experiences, and they served to determine curriculum and teaching needs in considerable detail. As a result Project staff designed a written curriculum and, during the following two years, 1967-68 and 1968-69, this design was studied, revised and redesigned by means of field tests in a variety of classrooms in different schools, and with different teachers. The final product was a well-tested curriculum package for prekindergarten and kindergarten children.

SPRING 1966: THE INITIAL STUDY

The first phase of the Project, with token funding, involved a comparison of teacher behavior and child responses in a variety of classrooms. The Activities Analysis Form (hereafter referred to as the AAF), which appears in the Appendix, was developed as an instrument for the study ofteacher behavior of early childhood teachers. The instrument served to define the initial task of the Project, that is, to sample, categorize, and compare different teaching behaviors in the same classroom, as well as in different classrooms. The category checklist form was revised many times, as new samplings uncovered inadequacies of omission or insufficient differentation.

Pairs of observers used the developing checklist in various ways. Sometimes, for brief time periods, both observers checked the categories, then compared notes immediately to find the extent of their agreement. At other times, one observer hand recorded a summary of teaching behavior, while the other used the checklist instrument. Immediately after making a few samplings, the pair exchanged roles, so that they took turns using the form. Again, the observers checked the extent of their agreement in categorizing the observed behavior.

Since it was desirable to sample as wide a range of behavior as possible, permission was secured to make these studies, not only in the central Harlem school (where there were beginning to be some exploratory efforts at changing the curriculum), but also in several day care centers in the same neighborhood, as well as in some private schools serving an upper middle-class population, and in the Agnes Russell School at Teachers College, Columbia University, a service school for children of graduate students and teaching staffs of the Columbia University academic community.

Since the AAF instrument grouped teacher behaviors into three large categories, checklist samples readily indicated the areas in which any sampled behaviors tended to fall. It became apparent that, in classrooms for the low SES (socio-economic strata) children, behaviors categorized "managerial" or "behavior control" occurred far more frequently than behaviors categorized as "instructional" that the initial intention to pursue the use of this instrument systematically throughout the life of the study seemed unimportant compared with the obvious and urgent need to change this state of affairs, in order to emphasize instructional forms of teacher behavior. Subsequent experience, which suggested teacher resentment and anxiety when such observations were made, and lack of personnel to pursue observations, without responsibility for inservice work with teachers, resulted in the decision to omit further data collection with this instrument, in favor of higher priority tasks.

Despite the failure to collect systematic classroom observations with the AAF instrument, its initial development and use were invaluable to pinpoint desirable changes in teaching behavior, as well as the overwhelming needs of the low SES children observed in spontaneous, and in structured situations in these classrooms.

1966-67: CURRICULUM DESIGNS AND INITIAL IMPLEMENTATION

When staff and funding were made available for a larger-scale project, it was decided to work with nine prekindergarten teachers in four different central Harlem schools during the 1966-67 academic year. The purpose of the Project was to emphasize language and mathematics instructional plans for 4-year olds, in these predominantly black, low SES populations. The emphasis was to be on teacher-planning and on designing teacher strategy for instruction of the children in the two subject areas selected for that year. The selection of subjects was limited to these two areas, because it was planned to develop goals and teaching plans in other subject areas during that year, with the assistance of consultant experts, and staff study. The variety of competencies of the nine teachers participating in the 1966-67 study indicated the need for more specific forms of curriculum design, aimed at encouraging teachers to develop programs which would be fruitful for the children involved.

In seven of the nine classrooms, the population consisted of homogeneous groups of Negro children from low socio-economic strata homes. The teachers varied from experienced early-childhood teachers to elementary teachers without previous experience in teaching young children. In two of the classes, which were more integrated, both as to socio-economic strata and as to ethnic groups and color, it was decided to concentrate on the mathematics work which was of special interest to one Project staff member, who was in the process of developing his doctoral study in this area.

A team of two research staff members, including the two co-directors of the Project, was assigned to each of the four schools, and a pattern was established of working with teachers in classrooms for three or four mornings a week, in addition to weekly lunch-hour inservice teacher meetings, at each school. The inservice meetings were devoted to diagnosis of children's instructional needs and joint planning for classroom instruction to meet these needs.

The Project staff developed a written document delineating long-range curriculum goals and this statement was used as the common framework for curriculum planning in all four schools. Teachers were encouraged and assisted to keep records of plans for specific children, directed to these long-range goals. Four times during the year, joint meetings were held for all Project and school staffs involved, including teachers, principals and supervisors, and these meetings were well-attended.

It soon became apparent that teachers were very unsystematic in developing curricula for defined needs, or even in their attempts at record-keeping of these needs. Teachers were unable to distinguish successful from unsuccessful plans, either for an individual child, or for groups. Teacher records were fragmentary, unreliable and discontinuous. The ephemeral nature of a tremendous investment of time, energy and materials, supplied by Project staff, was disquieting.

Project staff began to develop a series of "working papers" on specific topics, consisting of a statement of goals and suggestions for specific procedures and activities for classroom implementation. Working papers were prepared on language development, tape recorder use, development of self-concept, music activities and science. It was suggested to teachers that, since their creativity and individuality were valued, it was hoped that they would feel free to choose and elaborate on those activities they considered appropriate for work with their own classes. As these papers were distributed, they became the focus of the weekly teacher meetings, for study, discussion and evaluation.

Teacher response to the working papers was enthusiastic. Since these papers translated long-range goals into specific suggestions for classroom activities, teachers seemed better able to understand that thrust of the curriculum and to relate day-by-day activities to the long-range goals. Up to this point, Project staff were reluctant to prescribe any specific procedures, fearing to restrict teacher ingenuity and freedom.

It became evident, during the 1966-67 study, that teacher ingenuity and freedom to improvise were in fact greatly obstructed by their limited

PS 001282

knowledge of child development theory, and of the possibilities of such subjects as music or mathematics, upon which they might have drawn for rich program activities. The devotion of teachers to a limited number of teaching strategies and their neglect and ignorance of additional options, seemed far more constricting than Project staff suggestions. In most of these classes, management and discipline were the overriding preeccupations so that teachers tended to conclude that the children offered them neither the time nor the possibility of instruction. Absence of diagnostic skills, especially in the cognitive and affective domains, were frequently noted. Finally, teachers tended to be guided, in their evaluations of their own programs, less by results than by the observable fact of happiness in school.

Transcriptions of tape-recorded teacher meetings yielded many teacher comments to the effect that, "Yes, that activity went well. The children enjoyed it." Seldom was there the equally important assessment of what children learned or what learning problems were encountered.

It was concluded, on analysis of the 1966-67 study, that more systematic and planned instructional opportunities for children required the development of structured teaching prototypes, such as those represented in the working papers. However, it seemed possible to develop even more specific structure models of teaching, or clearer direction and more differentiated details, to enable teachers to offer more effective programs, without feeling constrained and limited.

Plans were made to develop a curriculum package of greater specificity and detail, to make more knowledge readily available for teacher selection and use in subject areas and in developing new ways for assessing and diagnosing children's progress in school. It should be stressed that at no time was it contemplated that teachers would be boxed into a curriculum package which would be entirely prescriptive and constricting. Instead, the curriculum package was conceived as a specific series of models which would suggest options, alternatives and examples. The hope was that the more models the teacher could learn, the richer repertoire she would have, out of which to make her own decisions, and the more expert she could become in applying her knowledge to the needs of individual children. The curriculum package stressed specific learning goals and teacher strategies and there was strong de-emphasis on total group instruction and punitive types of behavior control, substituting positive forms of teaching, teacher demonstration, modelling and individual instruction.

The new curriculum package included the following features:

1. A systematic plan for curriculum development, based on long-range goals, was offered to replace emergent, intuitive and on-the-spot program planning.

2. Basic cognitive skills which were felt to underly all school learning, were applied to selected disciplines and translated into a series of classroom activities. These activities were sequenced by developmental level of difficulty, based on task analysis and classroom tryouts.

3. Structured teaching episodes, called structure models, were written as prototypes for teacher study and use.

4. Materials were identified for each classroom activity, as examples of appropriate learning tools, for specified purposes.

5. The structured teaching prototypes suggested strategies devised to help children to organize their learning experiences and to express them orally.

6. Play activities were emphasized in the program, since play was regarded as the natural, essential way children confront the environment and begin to learn. The spontaneity and total involvement of children could free teachers to work intensively for brief periods with individual children.

7. Teachers were asked to make regular weekly assessments of children's progress, using tests suggested by Project staff.

The basic organizing elements of the curriculum were summarized at the end of the 1966-67 year as follows:

1. Concept development - of selected basic concepts which underly all school learning in most subject areas, and concepts from selected disciplines, that is science, mathematics, music and the social sciences.

2. Perceptual-cognitive development, selected to promote especially cognitive processes of categorization and classification.

3. Language development, that is oral language growth and symbol orientation and learning.

4. Self-valuing, for motivational purposes and for respect of the learner as a person.

5. Aesthetic development, as integrally related to intellectual stimulation, through art, music, dance and poetry.

6. Work with parents, especially helping teachers to enlist parents' cooperation in children's intellectual growth.

The process of developing the new curriculum involved these procedures:

1. Identification of multiple and complex goals.

2. Specification in detail of teaching strategies, content, learning strategies, equipment and procedures.

3. Selection of activities regarded as capable of generating multiple learnings.

4. Frequent meetings with teachers to develop the common purposes, plans and evaluative structure required to implement the plan and to help teachers to implement this curriculum.

5. Collaboration of the Project staff with the teacher in the classroom, for cooperative and demonstration teaching and/or observation or testing, to increase the congruence between program blueprint and actuality, and to offer Project staff maximum opportunities for field testing and first-hand observation.

6. Development of special materials for more efficient teaching-learning strategies.

7. Consultations with experts in various disciplines for assistance in identifying conceptual structure and conceptual hierarchies in those disciplines, mainly to help staff pinpoint initial and early conceptualizations as goals for children's learning.

1966-67: DATA AND FUNDINGS

Since the staff spent most of its energies on language development programs during the 1966-67 year, data was chiefly secured on language growth from two sources, tape-recorded samples of children's speech and a language test.

The language test, a reading-readiness type of test, assesses various aspects of children's visual and auditory discrimination of letter symbols and spelling patterns, their understanding of some concepts of multiplicity of word meanings depending on contextual and word position clues, and their ability to read some sight words and sentences.

Pretests and posttests were administered to 84 children in Harlem prekindergarten classes and the scores were compared with results from the same test administered in a nearby private school to middle and upper-class children. The high socio-economic strata group which had taken this test, had experienced a structured language learning program similar to that offered to the low socio-economic strata group in central Harlem, although the high socio-economic strata group's program was more intensive, more structured, and less inclusive.

Comparing the same age groups, that is four-year olds, on the language test, which had a maximum possible score of 151, the low SES group in Harlem showed a difference raw score of 12.8 from pretest to posttest, while the high SES group had a change score of 15.7. While all gains were statistically significant, it seemed apparent that the gains for the low SES group were small. On the other hand, it would be unreasonable to expect a low SES group to catch up to a high SES group on language development, in only one year of school, when both groups were receiving special language instruction, and when the high SES group started with so much advantage. It seemed possible that the low SES group was experiencing a language development program too diluted in strength to achieve desired results. The data suggested the need for a much more effective language program to continue beyond the prekindergarten year.

Language samples were tape recorded in the 7 classes of low SES children, in which the children were almost all black. Comparisons between samples taken early and late in the school year found notable improvement in various infantile pronunciations such as substitution of "w" for "r" sounds which could of course be attributed to expected development, primarily through maturation and speech usage. Other findings were these:

1. Most of the children developed considerable fluency and ease of verbal communication, compared with shy and uneasy verbalization earlier in the school year.

2. Monosyllables, brief phrases and gestural responses tended to develop into a surprisingly high proportion of complete, if simple, sentences, without phrases or clauses.

3. The children's speech became far more understandable, probably due to the testers' greater familiarity with the children's speech patterns, as well as children's increased speech maturity, and their experience in interacting with and communicating with new adults and children at school, and possibly, in part, due to the language program which they had experienced. There was a notable decline in slack lip position, mumbling, uneven flow of words, repetition of words and phrases, or language tangles, and of baby talk.

4. The children generally had a considerable fund of school-acquired information available for spontaneous verbalization, from class trips, inclass experiences, poems, stories, chants and rhymes.
5. Vocabulary increase, for verbal description and discussion, was notable. Names, labels and descriptive words were greatly multiplied, or far more readily elicited and used.

6. Enunciation and pronunciation were somewhat more precise, for most children.

7. Verb omission, very common on initial samples, was surprisingly uncommon on final samples.

8. Many typical non-standard speech patterns remained unchanged, including some verb omission, lack of harmony between nouns or pronouns and verbs, and use of verb tenses, and pronoun use generally. In other words, most children showed ability to use standard English syntactical patterns, and to move back and forth from non-standard to standard language patterns.

TABLE I

Language tests: Comparison of raw scores for four-year olds, for low and middle SES groups, means, standard deviation and differences between pretests and posttests, by sex.

Comparison items	High SES			Low SES		
	Total	M	F	Total	M	F
Age: N	31	12	19	84	38	46
Mean: yrs. & mos.	4yr.3.4m	4yr3.3m	4yr3.5m	4yr3.8m	4yr.4.3m	4yr315m
Range	3yr 11m- 4yr 8m	3yr 11m- 4yr7m	3yr11m- 4yr8m	3yr 9m- 4yr9m	3yr11m- 4yr9m	3yr9m- 4yr9m
Pre-test: N	32	13	19	78	35	43
Mean-raw score	40.1	50.9	44.9	20.4	19.8	20.9
Standard deviation	13.9	13.6	11.8	6.9	6.4	7.3
Range	24-69	24-58	28-69	4-40	6-35	4-40
Post-test: N	33	13	20	72	33	39
Mean-raw score	56.4	50.9	60.0	32.6	34.3	31.2
Standard deviation	16.4	13.1	17.4	7.9	7.5	7.9
Range	33-105	33-76	37-105	15-55	22-55	15-47
Difference, pretest to posttest: N	31	12	19	61	28	33
Mean-raw score	15.7	19.6	13.1	12.8	14.5	11.4
Significance of difference of means at .001, t =	8.5	6.0	5.6	12.1	11.1	7.2

The language analysis indicated a need for more intensified, more frequent and more effective oral language practice experiences. It was noted that language development activities became intensive only toward the end of the academic year, when teachers began to understand the complex processes involved and to value the objectives of the language program.

A great need was noted for intensive teacher retraining in strategies of language development prior to the opening of the school year, so that teachers could expect children to achieve more, over a longer period of instruction and practice. A gross congruence index was constructed at the end of the year, on a 3-point scale, number 1 to 3, from low to high and each teacher was ranked by Project staff on the various elements vital to the 1966-67 program. This was an attempt to assess roughly the extent to which each teacher had succeeded in bringing into being those aspects of the program which had been most specifically blueprinted by the staff. From this rough congruence index, of the actual programs realized in classrooms compared to their prototypes, it was concluded that much better in-service training was required and that more detailed prototypes of teaching would have to be developed, if the new curriculum were to succeed in mapping as many elements as possible for an intellectually stimulating school experience for these young children.

Tape recorded structured interviews with teachers offered more ideas for improvement in the curriculum design. The teachers perceived the Project's major focus as that of developing language skills. Since the teachers received the most detailed teaching models in the language content area, this area appeared to overshadow the entire program for them.

Most of the teaching sequences were perceived by the teachers as "games". Of course, many games were suggested for practicing specific language patterns, but the teachers seemed to have ignored the many non-game teaching sequences.

When asked to designate which activities resulted from the Project, teachers listed only one or two. These included rhyming object games, work with initial consonant sounds, with the alphabet, sound cylinders, sound-symbol object box and the tape recorder. Some teachers mentioned the change from large to small group work, as well as trips with a focus, and orderly, sequential presentation of learning experiences.

Two teachers indicated that they found they had to neglect important areas previously given greater prominence, such as art, music, science and math. Since these areas were all included in the new curriculum design, it may be that, in attempting to work with new content, these teachers had omitted material from other content areas. It was undoubtedly difficult for some teachers to strike a balance in adjustment to the new program.

Five teachers indicated that, as a result of the new program, they had acquired greater ease in setting up small group work and in using teacher aides for instructional purposes. Four teachers stated that they had developed more structured teaching strategies, with a defined focus and they felt better able to select teaching-learning experiences for young children.

All teachers indicated the usefulness of their new skills in keeping checklists of children's skill development, both as a record of growth and for quick reference in planning for children. They chiefly used

3" by 5" cards, and disliked them, recommending that a better format be found, which would correlate with the program.

Teachers stated that Project activities made it easier to assign specific tasks to paraprofessionals and to engage them meaningfully in classroom teaching. Project procedures which enhanced utilization of paraprofessionals included:

1. Recordkeeping of children's progress.
2. Single-purpose games with specified materials.
3. Written form of teaching prototypes, making it easier to share with paraprofessionals.

Changes in teaching patterns resulting from involvement in the Project were listed as follows:

1. Teachers to organize plans better and to be more relaxed with children.
2. Teachers became aware of own need for speech improvement, as a model for children.
3. Teachers felt a positive change in their attitude toward children, due to increased interest in the teaching program, compared with previous year's teaching of 4-year olds.
4. Teachers felt a positive change in attitude toward children's ability to become involved in task-oriented learning activities and to increase their attention span.

Teachers indicated that some anxiety was produced by the presence of Project staff in the classroom, especially earlier in the year, and there was some resentment over the time required for meetings. Nevertheless, all teachers perceived the program as having strongly positive effects on the children. Some of the effects included more relaxation by children and teachers, children's improved skills in verbalization, both in content and in pronunciation, and children's improved ability to structure their own play activities and to have clearer purpose and direction, especially in block building and in dramatic play.

Teacher suggestions for improvement of Project operation included more time for them to work with Project materials, ideas and personnel, an earlier start in the school year, an earlier start for record-keeping and planning for teacher work with parents, more elaboration in the structure models and earlier distribution of these written materials to teachers, more efficient procedures, and better scheduling of inservice meetings. Teachers also suggested it would be useful to have preliminary meetings with all classroom personnel and research staff, to clarify the role of paraprofessionals in the program.

The timing of inservice meetings continued to present problems during the next two years, since teachers became increasingly unwilling to attend meetings after school, even when they were paid at their regular hourly rate of pay for such time, and they thought inservice meetings and experi=ences should somehow be fitted into regular school time. The inclusion of paraprofessional personnel in inservice meetings also presented problems of timing, as well as of funding.

1967-1968: IMPLEMENTATION

During the 1967-68 academic year, a first version of a very detailed curriculum design, with a series of weekly diagnostic tests, was implemented in prekindergarten classes with four teachers in two Central Harlem schools. The planned series of inservice meetings, to study the new curriculum, in advance of its implementation with children, at the beginning of the new school year had to be eliminated because of a brief teacher strike during the first few school days of the new term.

Of the four prekindergarten teachers available for the intensive year of implementation, only one had worked with Project staff during the preceding year. Teacher turnover had required hiring of teachers who were new to these schools. One teacher, new to teaching young children, was hired several weeks after classes began, to take over a class which had been maintained by paraprofessionals and substitutes. Of the other two teachers, one was in her first year of teaching, and the other was a very experienced teacher of young children, whose experience included nursery school and day care teaching, as well as public school prekindergarten teaching.

Although the Project staff had received support, encouragement and commitment from the Board of Education's central office staff, from the district staff, and from the local school's administrative and supervisory staff, the "outsider" position of the Project staff circumscribed its authority and ability to make fundamental changes in the teaching strategies and programs in the schools. On the other hand, the lack of authority and the non-judgmental status of the Project staff, since it had no authority or responsibility, offered a sense of colleagueship with teachers, and facilitated candid interchanges on the course of the Project.

Weekly inservice meetings rotated between the two schools, which were just beyond walking distance from each other. These after-school weekly meetings were supplemented by individual lunch-hour meetings with individual teachers, or sometimes, with the two teachers in each school. While teachers were paid for their meeting-time, out of Project funds, since meetings could otherwise not be held, they frequently voiced reluctance to attend the after-school meetings, because of fatigue, or home responsibilities. Teacher resentment frequently counteracted their receptivity to new ideas and was a frequent barrier to effective communication. Despite this thorny problem, which Project staff was unable to resolve during the year, a great deal of valuable teacher feedback and collaborative planning occurred at these inservice meetings, contributing greatly to improving the curriculum design.

To improve and complete the curriculum design, there were additional consultations during this year with experts in mathematics, geography, science, speech and language, which served to improve the design. As it was stated in a November 30, 1967 Status Report,

> "The curriculum design under construction in this study is geared to offering young children in the inner city ghetto opportunities to confront and to begin to master some of the root learnings which undergird man's knowledge and conceptions. At more advanced levels of study, the knowledge and heritage of man's thinking is pursued in separate disciplines, such as mathematics and the sciences. For four-year olds, root learnings can be pursued which are basic to many different disciplines. In extracting and teasing out appropriate types of root learnings, the strategy had included an examination of major disciplines to seek the undiluted richness of content potential. Eventually, the differentiated roots are expected to be recombined in rather obvious ways, since so many of these are very similar or the same. For example, it is already evident that root learnings in math, science and selected social sciences are very similar in their strong focus on observable properties, objects and aspects of the environment and the development and application of varieties of classification systems, with the development of concomitant language skills. The curriculum plans are efforts to make this design meaningful and stimulating to teachers, as well as to children."

The curriculum design offered to the four teachers during the 1967-68 year not only included greatly detailed structure models of teaching, but suggestions for weekly schedules and pace of introduction of new material to those children who were found to be ready for further challenge, and for the placement of diagnostic tests. The pacing suggestions and the weekly testing proved troublesome to the teachers.

At the end of the 1967-68 year's work with the new curriculum, considerable revision of the written curriculum was regarded as necessary. On the basis of Project staff observations and teacher feedback, it was decided to:

1. Trim the curriculum so that it would be shorter, sharper and more selective. Teachers complained there was too much to read, and too much to do.
2. Introduce some of the structure models for teaching earlier in the year, to lengthen the period of practice in skill and concept development available to children.
3. Omit various structure models for teaching which did not prove useful.
4. Introduce greater redundancy into the structured sequences so that teachers might become more skillful earlier in using them.
5. Introduce more prepackaged materials for the structured sequences, so that materials would be available when needed.
6. Revise the language program to provide clearer practice opportunities for language uses for cognitive purposes, especially in making comparisons and contrasts, grouping and differentiating information.

Accordingly, the curriculum design was completely revised and rewritten. A decision was made to develop the curriculum as a 2-year program, which it seemed to be, for prekindergarten and kindergarten, with the hope that a sequenced two-year program would have more impact than a one-year program, on the child's long-range development and his chances for academic success. It was planned to have the revised curriculum ready for inservice training at the very beginning of the school year, to prepare teachers to use it knowledgeably. Diagnostic tests were revised, but retained for weekly use, despite indications of teacher distaste for testing.

Analysis of the year's results indicated that teachers spent a great deal of time and energy on classroom management and behavior control. A disproportionate amount of time was spent at inservice meetings on specific problems, especially in behavior of "difficult" children. Project staff worked with teachers on these problems, since they were uppermost in teachers' priority scales. Behavior shaping techniques were introduced into a particular classroom and were very successful in helping several children to drop disruptive behavior. Teachers reported that discipline problems tended to decline when children became involved in the challenges of sequenced learning tasks. Teachers began to learn to cultivate and expect children's growing independence in task involvement,and their classroom management problems also tended to decline, as they became more organized and systematic.

A primary cause of the difficulties involved in changing these teachers' programs appeared to be their attachment to familiar and well-learned procedures. They tended to try to graft new procedures and materials onto their regular routines and activities. Especially, teachers clung to their series of holiday craft products, so that, for weeks at a time, they made little or no progress with the new curriculum.

Project staff felt that this accounted for their complaints that the curriculum was too fast-paced for 4-year olds and too demanding of teachers. Project staff always stressed that pacing of children was individual and the written curriculum always suggested the introduction of new tasks only to children the teacher deemed ready for them.

Project staff were dissatisfied with the efforts made during the 1967-68 year to include parents in their children's education. Several school meetings were arranged for parents and Project staff agreed to address these meetings, when invited, using videotape to demonstrate children's school learnings, and distributing simply-written duplicated suggestions for parents to take home. However, Project staff had little influence in the parent programs at either school. Therefore, it was decided to develop a pilot parent project the next year at one of the schools, to augment the program children were experiencing at school.

1967-68: CURRICULUM REVISIONS

An intensive program was completed in 1967-68 with four teachers in two schools in Central Harlem, implementing a drastically revised curriculum. Two speech specialists assisted in studying the children's language development.

Because of the demanding requirements of the new design, Project staff were engaged in writing and rewriting throughout the school year. Some material was completed just in time for its use in the schools. The results of the 1967-68 year's study included a completed curriculum design, fully detailed, scheduled and sequenced. The requirements for revision of this design had been collected in the form of oral and some written feedback from teachers, in addition to a great deal of hand-recorded, tape-recorded and vide-taped observations and evaluative data. A filmstrip with narrative tape was completed, to offer a more vivid description of the new curriculum and teaching strategies. Entitled, "Curriculum for Urban Prekindergartens," this filmstrip is available at modest cost from the New York City Board of Education, Bureau of Audio-Visual Instruction, 131 Livingston Street, Brooklyn, N. Y.

To serve the same purpose as the filmstrip, but for more diversified audiences, especially parents and supervisory personnel, a movie about the curriculum Project was produced by the Center for Urban Education based on a script written by the Project Director. The movie was filmed in one of the Central Harlem schools participating in the Project, and is entitled, "Four Years Old and Ready to Grow."

As a result of the 1967-68 classroom studies, based on weekly teacher feedback in written and oral form, as well as observations and independent language evaluation by two speech consultants, Professors Seymour Rigrodsky and Elinor Morrison, of Teachers College, Columbia University, the following revisions were considered necessary:

1. Shorter, clearer and more selective written curriculum.

2. Earlier introduction of some activities and of structured teaching sequences, to provide longer exposure of children to program activities, and omission of some teaching sequences which teachers disliked or found ineffective.

3. Greater redundancy of structured sequences, to help teachers to learn fewer, more repetitive strategies more quickly.

4. More prepackaging of instructional materials required for structured sequences, so that more materials would be available when they

were needed. These included pretaped language material, manipulative science materials and music and math materials.

5. Further revision of the language program, with more emphasis on the uses of language for cognitive purposes.
6. Improved, easier to administer, diagnostic tests.
7. Redesign of the program on a two year, instead of the one-year period, to include kindergarten as well as prekindergarten children, with the realistic expectation that much more could be accomplished with young children over a two-year period. This change chiefly required including more advanced goals, and programs, in a few areas such as music and math, but mostly changing the language program to add a beginning reading sequence. An eclectic approach was selected for reading instruction, emphasizing the tutorial basis for instruction, using elements of the linguistic phonic language experience and look-say methods, with the addition of a sturdy primer typewriter as a required piece of kindergarten equipment.

A. Teacher Diversity

The responses of the teachers to the new curriculum varied and so did their behavior and their actual programs. A gross congruence index, relating the realized program to the written design, was constructed on the basis of the teachers' weekly reports of their classroom implementation. These reports merely showed checks for program elements initiated during the week, with occasional comments by the teacher on the shortcomings and strengths of the specific sequence. This index gave no assurance that program sequences were being implemented with more than one child in any classroom, since the check marks simply indicated that the teachers had implemented a structure model in some way. This index yielded scores of 60, 70, 80, and 90, respectively. While these scores

BEST COPY AVAILABLE

seemed to overstate the extent of program realization, classroom observations showed the relative standing of the teachers seemed correct. However, the teacher with the highest score, who reported correctly her attempt to actualize most of the program, was without previous experience in teaching young children and spent a great deal of time coping with problems of classroom management and discipline. The other three teachers were able to spend less time on these problems and more on problems of grouping and pacing the program for different children, since they had greater skill in behavior control of young children.

Data Analysis, 1967-68

Test scores were secured for the four morning prekindergarten classes in which the new curriculum had been implemented during the year, and for two of the afternoon classes taught by these teachers, in which they followed their usual programs, here called Comparison Group II, and from two groups in a nearby school in the same school district, with a similar population, here called Comparion Group I.

Comparison Group II, in which the teacher variable is held constant, probably provides a more valid comparison than Comparison Group I, where there were four unusually skillful teachers, who were continuing their own professional education in local college after-school classes and trying out in their classrooms some of the ideas about which they were learning in their college courses. In addition, subsequent to pretesting in this school, additional personnel was added to the prekindergarten staff here, so that each class had two certified teachers and a teacher aide, in contrast to the single teacher and aide in the classes using the experimental curriculum.

Table II shows the pretest, posttest, and change scores on the Peabody Picture Vocabulary Test, hereafter referred to as the PPVT, and posttest scores on the Goodenough Draw-A-Man Test for the three groups. Scores were almost identical for the classes using the experimental curriculum and Comparison Group I. Comparison Group II however, consisting of afternoon classes of the teachers using the experimental design in morning classes, fared less well and had significantly lower scores, with posttest means of 78, compared with the other two groups with 86, on the PPVT. However, Comparison Group II also had lower pretest means and it cannot be ruled out that teacher and/or child fatigue in the afternoon sessions may have been the chief factors accounting for less progress.

The Draw-A-Man Test was given only as a posttest, and on this measure, the experimental group outscored the others by a significant margin, with a mean of 87.4, compared with 82 for Comparison Group I and 76.3 for Comparison Group II. There is no reason to expect that Comparison Group II had a different distribution of children than the classes in the morning participating in the new program. Assignment to morning and afternoon sessions would seem to have been on a random basis, although there may have been factors operating which were not apparent.

It was interesting to note that sex differences were negligible, except on the Draw-A-Man Test where girls scored higher than boys. To the extent that this test requires eye-hand coordination in drawing, the sex difference may merely reflect the girls' somewhat greater physical maturity at this age.

The data showed a 15-point increase in mean IQ scores for the group using the experimental curriculum as well as for the out-of-school group, Comparison Group I, with both groups scoring, on the posttest, means of 86. It is interesting to note that the only one of the four teachers in the experimental program who was working with the curriculum for the second year, Class I, produced the highest scores in the group, 91.9 on the PPVT posttest and 98.1 on the Draw-A-Man posttest. It seemed hopeful to note that the only teacher with some skill in the new program was able to produce better results than the three teachers who were struggling to learn a new program for the first time.

CUE Pre-K Study of Intellectual Stimulation

Table No. II

Experimental and Two Comparison Prekindergarten Groups: Mean scores on pretests and posttests - Peabody Picture Vocabulary Test and posttest on Goodenough Draw-A-Man Test.

	Group		
	Experimental n=55[1]	Comparison Group I n=24[2]	Comparison Group II n=23[3]
Scores:			
PPVT			
1. Pretest IQ	70.9	69.5	65.4
2. Posttest IQ	86.0	85.6	78.3
3. IQ Change	15.1	16.1	12.9
Goodenough Draw-A-Man Posttest Standard Score	87.4	82.0	76.3

---

[1] Experimental morning classes of 4 teachers in 2 schools in Central Harlem, staffing of 1 teacher and 1 teacher aide to a class of 15 four-year old children.

[2] Children in different school in Central Harlem in an "Enriched Primary Program," with staffing similar to More Effective Schools, that is, 2 certified teachers and 1 teacher aide to a class of 15 four-year olds.

[3] Children not in experimental treatment in afternoon classes of 2 teachers with experimental morning classes.

C. Study of Auditory Discrimination

Since the literature about the disadvantaged abounds with studies indicating that low SES children generally have poorer auditory discrimination than middle or high SES children, that good readers have better auditory discrimination than poor readers, it seemed fruitful to make some fresh assissments of auditory discrimination with the Project population. The assistance of two speech specialists was enlisted, Professors Seymour Rigrodsky and Elinor Morrison, both of Teachers College, Columbia University.

An attempt was made to administer the Illinois Test of Psycholinguistic Ability to the four-year olds in the central Harlem classes, but it was found, under carefully controlled conditions that it was impossible to maintain the attention required for this lengthy test, even at mid-year. Since the complete test required about one hour, few children could complete it.

Instead of the ITPA, other instruments used to assess the children's speech development included the Templin-Darley Articulation Test, the Wepman Auditory Discrimination Test, a word association test devised by the consultants and analyses of tape-recorded speech samples, as shown on Table III.

1. Templin-Darley Articulation Test

Generally, it was found that the children tested achieved average scores comparable with the Templin-Darley standardized scores for "lower SES groups." The Templin-Darley scores for higher SES groups are higher. It is difficult to interpret this data. It is not clear whether this means that low SES children generally score lower on this test because it is based on standard English articulation and therefore dialect speakers, such as the children in the central Harlem sample, have different articulation patterns.

Hpwever, specific articulate defects such as the incorrect production of a voiced "th" in the final position, or a voiceless "th" in medial or final positions, common to three-fourths of the children tested in this sample, are common developmental speech problems for young children at this stage in most SES groupings. The most common type of error found for this sample was the substitution of one phoneme for another, which could simply reflect dialectal differences in sound production, rather than articulatory defects. Other common "errors" found were omission and distortion of varoius speech sounds.

Professors Rigrodsky and Morrison compared the phoneme production of the four-year old children in this sample with Templin's report on the earliest ages at which 75 percent of the children tested could produce each of the consonants correctly, and they found the distribution of the Harlem sample consistent with the Templin distribution. The chief difference they found was thatlless than 75 percent of the children could correctly produce blends of "s" although "sh" was correctly produced in all positions and "ch" in the initial position.

Baratz' study suggests how clearly a test of auditory discrimination is a test of familiarity with a dialect pattern.[38] In her study, a group of sentences were randomly offered to children in standard English and in a Negro dialect, for repetition. The results indicated that the white children did just as poorly repeating Negro dialect sentences as Negro dialect speakers did with standard English patterns. It is beginning to be clear that auditory discrimination tests may reflect the disadvantage that dialect speakers suffer in trying to cope with standard English when they have not yet learned it.

2. Wepman Auditory Discrimination Test

This test, which purports to measure the child's ability to discriminate word pairs presented orally, was administered to 48 children, of whom 26 were between four years six months and four years 11 months, the rest of whom were slighly older. It was reported that only 21 percent of the sample had normal auditory discrimination according to Wepman norms, including four children in the under-age five group, and six children in the five to five-year six month group. It was noted that such distinctions as those between "e" and "i" on Form I of this test (pen-pin) were missed by 19 of the 33 children tested with this Form, and that could reflect interference from the Negro dialect. It was noted that children could always identify identical word pairs.

A sharp difference was observed between the child's ability to discriminate initial and final sound differences. Developmentally, initial sounds are produced earlier. However, it was also noted that omission of final sounds reflects dialectal interference.

The testers also note, that, although this test was given at the end of the academic year, in June, many children had difficulty responding to the task of "same-different" speech sounds. Whether the problem is poor auditory discrimination, poor memory span, dialectal interference or lack of skill in handling this kind of cognitive use of language ("Are these sounds the same or are they different?") cannot be definitively determined. On the whole, there seems to be a strong case for the need for more skill practice by these children in acquiring familiarity with standard English sounds and sentence patterns and in acquiring ease in verbalizations required for such cognitive tasks as those posed here.

The analysis by the two speech consultants appeared to support the Program's specificity and selectivity in language programming. The possible interference from dialectal patterns in the acquisition of standard English speech patterns had heretofore been given very little attention in programs for young children. Since there was no reason to suspect any massive forms of sensory deprivation in the Harlem sample, or of sensory pathology, it was concluded that there appeared to be a learning problem which could be tackled directly in the classroom.

3. Analysis of Tape-Recorded Language Samples

The children's tape-recorded utterances were subject to analysis of a structure type, to evaluate complexity of grammatical usage, and of a functional type, to assess maturity of purpose of communication. In addition, a measure of verbal output was computed to determine the number of different words used and the average sentence length. While there were problems, including language samples too brief for comparison with other studies, Professors Rigrodsky and Morrison concluded that, as shown on Table III:

1. The central Harlem children were markedly superior to normative groups described in the literature in the percent of compound and complex sentences used.

2. The central Harlem children spoke as much, at the same levels of grammatical complexity, using language as purposefully, as comparison groups.

3. The central Harlem children performed less well than comparison groups on the percent of questions asked and in the number of different words used, that is, they had smaller vocabularies.

Thus, this analysis confirmed the emphasis in the language program on vocubulary building.

4. Word Association Test

The speech consultants administered a word association test, based on Entwisle's list. Using 25 words, of which 10 were nouns, 8 verbs, and 7 adjectives, responses turned out to be far more of the idiosyncratic than the commonality type. The lack of normative data for this age group makes interpretation of this data difficult, and the researchers concluded that further study in this direction is warranted. It is possible to hypothesize that a high idiosyncratic ratio on such a test, for such young children, may merely indicate their youthfulness and egocentricity. However, if this is not the case, it may reflect the alienated experience of young children, either due to the paucity of social experiences available, the paucity of verbalization experiences in their primary groups or some constricting social features which tend to limit the extent of verbal,as well as nonverbal interactions.

TABLE III

Project CHILD: Language evaluation
of children in experimental classes,
low SES, New York City Public Schools, 1968-69

MEASURES OF VERBAL OUTPUT

Age 4½ years: N = 5
Age 5 years: N = 22

Number of different words

Ages	Present Group: Range	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(60-93)	77.4	123.0	100%
5.0	(42-131)	89.7	128.6	95%

One-word responses

Ages	Present Group: Range	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norm
4.5	(0-3)	.6	2.6	20%
5.0	(0-3)	.6	2.2	10%

Mean Length of Response

Ages	Present Group: Range	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(4.4 -13.7)	8.9	5.5	20%
5.0	(3.87-15.9)	8.9	5.7	15%

Mean Length of 5 Longest Responses

Ages	Present Group: Range	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(10.0-28.5)	16.3	10.28	20%
5.0	(6.8-35.0)	17.7	11.36	25%

TABLE III (cont)

FUNCTIONAL ANALYSIS OF SENTENCES

Age 4½ years: N = 5
Age 5 years: N = 22

Number of sentences

Ages	Present Group: Ranges	Present Group: Means
4.5	(10-25)	22.0
5.0	(10-25)	23.6

% Egocentric

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-82)	16.4	2.2	20%*
5.0	(0-28)	8.7	26.0	15%*

% Adapted Information

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(12-90)	58.8	54.6	40%
5.0	(19-88)	67.1	25.0	5%

% Emotionally Toned

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0)	0	6.4	100%
5.0	(0-4)	.36	22.0	100%

* The Ss having more of these responses than the published norms were considered below the norms.

TABLE III (cont)

FUNCTIONAL ANALYSIS OF SENTENCES, continued

% Questions

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-4)	1.6	8.2	100%
5.0	(0-32)	2.7	16.0	90%

% Answers

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(8-64)	23.6	26.0	80%
5.0	(8-81)	26.5	7.0	--

STRUCTURAL ANALYSIS OF RESPONSES*

Age 4½ years: N = 5
Age 5 years: N = 22

Number of responses

Ages	Present Group: Ranges	Present Group: Means
4.5	(10-25)	22.0
5.0	(10-25)	24.8

% Functionally Incomplete

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-4)	1.6	12.1	100%*
5.0	(0-28)	5.6	12.6	90%*

* See footnote page 36

TABLE III (cont)

STRUCTURAL ANALYSIS OF RESPONSES, continued

% Structurally Incomplete, Functionally Complete

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-52)	18.4	19.5	20%*
5.0	(0-62)	15.4	17.2	75%*

% Simple Sentence, No Phrase

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-48)	31.6	37.6	20%*
5.0	(12-68)	34.7	35.8	55%*

% Simple Sentence, Compound Object, Subject, or Predicate

Ages	Present Group Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-12)	5.6	12.1	100%*
5.0	(4.24	11.8	16.8	85%*

% Compound & Complex Sentences

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-90)	33.2	6.8	60%
5.0	(0-52)	19.7	8.7	30%

% Elaborate Sentences

Ages	Present Group: Ranges	Present Group: Means	Published Norms: 4.5 & 5.0	% Below Published Norms
4.5	(0-20)	8.0	7.5	60%
5.0	(0-48)	14.6	8.1	55%

* Some Ss who were below published norms for simpler grammatical constructions were above norms for more complex constructions.

1967-68: CURRICULUM REVISIONS

Again, teachers requested more brevity, clarity, redundancy and sel selectivity of written material. They requested cards to replace sheets of paper, since these were often carried about the room by the teacher and the paraprofessional, and required more durability and convenience of form. Other teacher suggestions included the use of more summaries, in chart form wherever possible, for ready reference of the sequences. Differentiated manuals, for teachers, paraprofessionals, parents and supervisors, were also suggested.

The card format could not be completed for the following year's use, that is in 1968-69, but was planned for 1969-70, although this plan was not realized. Manuals could not be written while staff energies were stretched to improve the written curriculum and to keep revising it in accordance with the feedback received. The impact on parents had been unsatisfactory and it was decided to try out a program which might have greater impact on parents in one school during the following year. School, teachers and paraprofessionals all seemed to be sincerely interested in reaching parents, but a mechanism was lacking for effective outreach.

1968-69: PROJECT IMPLEMENTATION

Due to the school strike and other conditions, the 1968-69 school year in New York City was unusually attenuated and beset with problems. Testing was handicapped by poor child attendance, as well as unforeseen problems of space, and stable testing conditions in the schools with which the staff was working for the first time. All teachers were new to the program and the long teacher strike had eliminated the planned inservice training at the beginning of the school year.

A. Participating Schools

The 1968-69 field test of the curriculum design for a 2-year ago span, covering prekindergarten and kindergarten, took place in several schools in the South Bronx and one in central Harlem, all with rather comparable populations, chiefly low SES black children, but with varying proportions of children from Spanish-speaking families.

The Harlem school differed from the other schools in that it was a new early childhood public school, with classes limited to children from prekindergarten through the 2nd grade, in addition to its special status in a project financed by the Board of Education to try out some new school arrangements. In the Harlem school, the new feature was its choice of an all-day program for all children, on a daycare model. However, none of the 4 or 5-year olds actually participated in all-day programs during the 1968-69 year, as the school planned to acquire the necessary staff and equipment for the all-day program. At this school, with an active governing council representative of parents, teachers, community and administration, it was mid-February before all parties concerned were consulted and agreed on the desirability of school participation in Project Child. The elapsed time at this school between pretests and posttests was barely two months, with correspondingly few inservice meetings with teachers.

Participation by grade level and school during the 1968-69 school year was as follows:

School	No. of teachers		No. of classes		No. of children	
	K*	Pre-K*	K	Pre-K	K	Pre-K
1	4	1	8	2	200	30
2	2	1	4	2	100	30
3	1	1	2	2	50	30
4	2	5	2	5	50	75
Total	9	8	16	11	400	165

* = kindergarten ** = prekindergarten

A comparison school was located in the Bronx, with four kindergarten teachers and eight classes, and one prekindergarten teacher with two classes. The comparison school was not an ideal choice because, while it was designated a special service school like the others, it had higher proportions of Spanish-speaking children, a substantial white minority, almost 30 percent of the school population, unlike the other schools, and it served a middle-class community. The most important source of non-comparability, which was discovered too late to make alternative arrangements during that difficult period, was the presence of the substantial white minority in the school population, compared with the almost toally black population in the schools using the new program.

In addition to the many other problems in school selection, during 1968-69, there had also been a substantial cut in the funds available for prekindergarten classes, and suitable schools, which might have been willing to cooperate in the Project's testing program, now lacked the classes for 4-year-olds which they had previously had.

Each of the four schools participating in the CHILD field tryout presented an opportunity to study different aspects of program implementation.. School No. 1, with four kindergarten teachers and one prekindergarten teacher, was distinguished by two factors:

1. It was the only participating school in which the administration, with the approval of the parent association, committed the school to try the program without consulting the teacher.
2. It was the only school in which Project Staff introduced a parent program, soon after the introduction of the new program.

Project staff found challenging problems at this school in finding ways to break through teacher resistance to a required commitment and to work with parents in a school situation where much parent-teacher hostility was in evidence.

In School 2, where teacher participation was by choice, and two of the four kindergarten teachers and the prekindergarten teacher chose to participate, shared enthusiasm and cooperative relationships among the teachers enhanced Project staff efforts and speeded the process of program implementation in classes. The collaborative teacher relationships offered excellent opportunities to record classroom sequences on videotape and audiotapes, for sharing, study and analysis and provided excellent material to be shared with teachers in other schools.

In School 3, where the administration selected one prekindergarten and one kindergarten teacher, and then gave these teachers the option of declining to participate, the teachers accepted the invitation. But with only two teachers involved, there was less mutual stimulation for Project activities and less prestige in the school. However, in-service meetings benefited from the considerably detailed forms of oral feedback teachers had time to deliver. At the end of January, the prekindergarten teacher transferred to another school, although she "trained" her successor, who had been a kindergarten teacher at this school. Since neither of these teachers stayed with the Project for long, it was impossible for them to develop the expertise with new content and teaching strategies which could only come through experience. At this school, a further problem was presented during the spring semester when the school accepted four student teachers from a college program with goals for the early childhood teachers contrary to those developed in the CHILD program.

School 4 was described above as a new early childhood school participating in a specially funded project, in which the school was planning to move gradually into a daycare schedule. While the daycare schedule did not materialize during the 1968-69 year, this school had several important advantages in program development, especially the relatively large group of prekindergartens, as well as grade level supervisors, known as coordinators, and extra classroom staffing because of the projected daycare program. An important difference between this school and the others was that the teachers were gradually divested of two sessions a day. This made an enormous difference in the obligations and requirements of teaching, even though the length of each teacher school day remained the same.

The major challanges presented to Project staff by School 4 were these:

1. The late start in the school year, necessitating changing a well-established program in each classroom.
2. Working with two grade level supervisors or coordinators, as they were called, one at the prekindergarten, the other at the kindergarten

level, to help them acquire the expertise in the new curriculum needed to assist the teachers.

3. Working with a large group, including seven participating teachers, two supervisors, and several auxiliary teachers, in addition to the usual paraprofessional personnel.

C. The Comparison School

Instead of using a comparison school solely for test comparison, it was decided to try to equalize the two situations by developing a clear treatment for the comparison school, including inputs of budget, staff time and expertise and inservice training sessions for the teaching staff. In the comparison school, four kindergarten teachers and one prekindergarten teacher, representing eight classes for 5-year-olds and two classes for 4-year-olds, were invited to work with Project staff to develop their own goals as the basis for assistance.

The comparison school staff expressed interest in working with Project staff, and over a period of weeks, a set of specific goals were gradually developed. Materials were purchased from Project funds, as needs were specified, and Project staff made regular visits to classrooms for observation and for inservice training, which included weekly meetings with all five teachers. New materials for this group were largely confined to tape recorders and cassettes, Polaroid camera, film and flashbulbs, and trade books, some of which were in the Spanish language, to foster the goal of valuing cultural pluralism. A prime goal, which the teachers in this school agreed on, was to de-emphasize total group instruction in favor of small group instruction.

Thus, to the extent that a "halo" effect was operating in the schools using the CHILD curriculum, the same effect seemed to prevail at the comparison school, in terms of the Project staff's personal interest in the teachers and children, valuing of new and promising instructional modes and materials, and facilitating the acquisition and classroom use of the new equipment.

D. Results of the 1968-69 Field Study

As a result of the 1968-69 field study, the following was accomplished:

1. An independent evaluation of the 1968-69 classroom implementation was delegated to Professor Herbert Rusalem, of Teachers College, Columbia University. He constructed several tests which were used in the evaluation, including an achievement-type test, sampling the skills and conceptual learning stressed in the curriculum, as well as a semantic differential and an open-ended series of questions, both designed to probe teachers' reactions to the CHILD program.
2. Further revisions of the CHILD program were based on the varied feedback from the large group of teachers and schools in the field study, and on staff observations of these different classrooms.
3. A preliminary teachers' guide was completed, based on the newly revised CHILD program, to be available for immediate use in further teacher training, pending the completion of more detailed manuals or guides.
4. The revised curriculum and teachers' guide were completed in time for inservice training sessions which were held in August and September 1969, for a number of schools which requested assistance in continued work with the CHILD program.
5. The completion of a report on the parent pilot project, which appears in the Appendix.
6. The completion of the Parent Booklet, which was regarded as rewarding to the parents who participated in its development, which serves to suggest its usefulness with other parent groups.

The trials and tribulations of curriculum implementation had been well documented by Project staff, during the course of the 1966-1969 field studies and it was felt that the following suggestions could be made to schools seeking to adopt this or another new curriculum:

1. In-school supervision and administrative support are essential to insure successful changeover to a new curriculum design.
2. Supervision, conceived as instruction, not as criticism or judgment, can help teachers to change to new teaching behaviors.
3. Inservice retraining, wherever possible, should begin prior to the school year, and continue throughout the first year.
4. Use of in-school videotape recordings, used instructionally and analytically, under teacher control, may be the single most powerful tool for teacher behavior change.
5. Involvement of parents in instructional expertise is an important form of insuring continuing instruction for the young child. Parent involvement as a form of teacher-parent collaboration is probably the most effective way to increase the extent of program delivery to the child.

ANALYSIS OF THE CURRICULUM CONTENT

During the first three years of Project CHILD, the Center monitored the development process but did not subject the curriculum or its theoretical framework to a rigorous evaluation. The curriculum was considered ready for a complete trial spanning a full school year in 1969-1970. Implementation of the program was begun in September, but in November information was received that the funding for the project was to be terminated immediately; as a result, all evaluation procedures and plans in process came to a halt. Because of the lack of funds to complete an objective field test of the curriculum, it was decided to continue the content analysis already begun in order to have some evaluation results on which to formulate an overall assessment of the curriculum.

The content analysis conducted involved an examination, of the conceptual foundations, both psychological and pedagogical, of the curriculum, and the congruency between the content of the curriculum and the stated theoretical framework. This analysis was conducted by a team of reviewers, three psychologists and one early childhood education specialist.

In the absence of complete statement of rationale, the reviewers were forced to depend upon the three documents available at the time. These were: 1) Paper presented at National Association for the Education of Young Children[1/] (See Appendix C); 2) Preliminary Teacher Guide to CHILD; and 3) CHILD curriculum.

While the overall evaluation was that the curriculum consisted of a

---

[1/] Robison, Helen F., Project CHILD: Evaluation of a Curriculum to Heighten Intellectual and Language Development, Nov. 15, 1969.

collection of interesting activities for children ages four to six, it appeared to lack both a unifying framework and an adequate theoretical foundation to integrate these activities into a single curriculum. In the absence of any discernible conceptual scheme, it appeared that the curriculum's theoretical base may be eclectic in nature. References to authorities such as Piaget, Omar Khayyam Moore, and psychoanalysts not identified by name, leave the reader in the dark as to the precise contributions of these theorists. Consequently because of the lack of description concerning the underlying conceptual base of the curriculum the following considerations are presented as examples of internal inconsistencies.

1. Theoretical Inconsistencies

   a. Definite acceptance of the theory of 'differences' rather than 'deficits' characterising the performance of children of the poor and minority groups is indicated by the author. Yet the Language Arts section draws heavily upon the work of Bereiter and Engelman[2] whose description of disadvantaged children contradicts that of the author.

   > "From the beginning there is a lag in learning that must be overcome if disadvantaged children are to emerge from school with the same skills and knowledges as more privileged children" (p.6).

   b. Agreement is indicated with Sylvia Ashton-Warner that "...all personal experiences seem to afford the meanings and events upon which academic skills can be built."[3] Since the curriculum is highly prescriptive and structured, there is little room for adaptations to the pupil's personal experiences. Further, without guidelines to teachers on what should be done to achieve this goal, the endorsement of Warner's thesis represents mere lip service.

---

[2] Bereiter, Carl and Engelman, Siegfried, Teaching Disadvantaged Children in the Preschool, Englewood Cliffs, N. J., Prentice-Hall, 1966.

2. Language Arts

   a. According to the author, "The aim of the language program was to help children become bi-dialectal and to develop skills of flexible use of either dialect in appropriate situations."[4] Implementation of this aim in the day-to-day activities of the classroom is unclear. The author does not specify that constitutes "appropriate situations" for the use of either the standard or non-standard dialect in the classroom. In the CHILD curriculum it is stated "The standard English dialect is taught as a second dialect, a school form, through games."[5] Since almost all of the child's time is spent in games in a preschool program it is not clear when and in which situations teacher is supposed to accept the child's native English dialect. The directions provided to teachers are both confusing and inadequate to achieve the objective of bi-dialectal flexibility.

---

[3] Op cit Robison (See Appendix C p.2).

[4] Op cit Robison (See Appendix C p.4).

[5] Robison, Helen, CHILD Curriculum (Language Arts 4.0).

b. The curriculum's emphasis on grammar while debatable, is less open to criticism than the grammatical content of the program, e.g., transformation from verb to noun to noun phrase. Further, it is also questionable whether the study of syntax emphasized in the language program of CHILD will carry over into the child's everyday usage.

c. The language section runs the gamut from training children to use precise labels to learning to read. The author states "A basic assumption was made that reading instruction would probably be more efficient in standard English than in non-standard forms because the latter lacks grammars, literature and even token acceptance in most schools."[6] The position adopted in this statement appears questionable. First, every dialect has its own system of word structures and word arrangements -- in short, a grammar of its own. Second, non-standard English is represented in much contemporary literature, e.g. James Baldwin, Mark Twain, James Joyce, etc. And thirdly, since reading is at the 4 year level, primarily involved with the decoding of visual symbols, it must be assumed that a child would be able to read purely by deciphering the visual symbols. The question of standard or non-standard English does not seem relevant.

d. In the Teacher Guide[7] it is stated that "A prime goal of the of the curriculum, however, is to stimulate the maximum amount of production of children's spontaneous speech. This developed through games and structured activities directly focused on language development as well as the activities developed in content areas." In the opinion of the reviewers since the vast majority of activities in Language Arts as well as the other content areas are highly structured, including the games, opportunities for the expression of spontaneous speech are limited. Further, it is difficult to reconcile the inclusion of verbal drills advocated by Bereiter and Engelman[8] for disadvantaged children, with the author's goals.

---

[6] Op cit Robison (See Appendix C p.4)

[7] Robison, Helen F. Preliminary Teacher Guide to CHILD (p.5).

3. Play

The author indicates agreement with the psychoanalytic theory on the concept of Play, which is important for the "discharge of tension and for internalizing and restructuring experience through fantasy and playful manipulation."[9] Reference is also made to Piaget's views of play, "the extreme assimilation, while necessarily involving distortion and fantasy, stresses its unique function in shaping personal meaningfulness, and in providing the possibility for various forms of cognitive functioning at a stage when more logical forms have not yet developed."[10]

However, the play activities described in CHILD do not seem to have the same purposes, or develop the same playful behavior that Piaget and the psychoanalysts regard as important. (Play as defined in CHILD most often consists of games having specified rules. e.g., Language 4.15 Word Games to practice the use of negatives in speech.) The play activities or structured games included in CHILD leave little room for creativity, release of tension or fantasy construction; nor has any allowance been made for play as a non-defined, non-regulated activity, permitting free expression.

---

[8] Op cit Bereiter and Engelman.

[9] Op cit Robison, See Appendix C (p.8).

[10] Op cit Robison, See Appendix C (p.6).

4. Teaching Strategies

In connection with teaching strategies, the author notes: "While the curriculum design may have the appearance of being totally prescriptive, it is not intended to restrict or confine the teacher who can improvise alternate activities for the same purposes."[11] In the opinion of the reviewers, the form in which the activities are described in the curriculum does not provide for an understanding of the overall cognitive goals that should result as a consequence of involvement in the activity. The teacher is restricted to knowledge of desired observable responses rather than understanding the learning goals.

For teachers to be able to develop alternative activities they must have a clear knowledge of the underlying theoretical framework. For example, in Cognitive Skills 2.20,[12] the child is required to copy patterns. The teacher is not made aware of the specific cognitive skills to be developed through copying patterns. In one case it may be matching colors, in another matching shapes, and in yet another matching objects in particular sequences. Further, adaptations to the particular needs of the pupil are also impossible without a clear understanding of the conceptual framework of the curriculum and the specific cognitive goals to be developed.

---

[11] Op cit Robison A Preliminary Teacher Guide (p.1).

[12] Op cit Robison CHILD Curriculum.

5. Motor Development

In the area of motor development, the curriculum appears to emphasize small motor and 'passive' perceptual ~~activity~~ activity. This approach ignores research indicating that the development of the whole visuo-motor complex and of the body-image taking place at the pre-operational period forms the basis for future cognitive learning.

6. Behavioral Goals

In connection with the behavioral goals for each learning activity the author states "Project staff fromulated behavioral goals in each content area identifying those which seemed to offer the most immediate possibilities for early learning in school.[13] In the absence of any additional description about the"immediate possibilities for early learning," the reader is left guessing.

In addition to the foregoing major inconsistencies there are a number of relatively minor suggestions for revision: Reorganization of subject area activities; improved consistency between and within structure modelsl reorganization of sequencing and numbering system;; reformulation of activities for multipurpose use through an appropriate cross-indexed system.

There ~~were~~ numerous instances in which the activities described did not match the stated behavioral goals. The sequencing of procedures within a learning activity as well as the sequencing of activities within a subject area need close reexamination. And lastly, the curriculum appears to be geared to a higher developmental level than the specified pupil age range.

In conclusion, because of the curriculum's serious lack of a unifying framework and adequate theoretical foundations, a major revision task was recommended by the evaluating team. The Center, in submitting this report, recommends that the curriculum in its present developmental stage not be used without major revisions.

---

[13] Op cit Robison (See Appendix C p.8).

P76A

APPENDIX A

INDEPENDENT ASSESSMENT OF PROJECT CHILD CURRICULUM

Herbert Rusalem

April 1970

PS 002282

Independent Assessment of Project CHILD Curriculum

by Professor Herbert Rusalem
Teachers College, Columbia University
April 15, 1970

1. Purpose

The purpose of this independent evaluation was to ascertain if the CUE-sponsored experimental Project CHILD curriculum was more effective in preparing children for school entry than the customary Head Start and Kindergarten programs used in the New York City Public Schools.

2. General Structure

Three major approaches were used to evaluate the experimental curriculum:

1. Pre- and post-testing of experimental and comparison subjects with the Peabody Picture Vocabulary Test, the Goodenough Draw-a-Man Test, and the Child Behavior Test, an achievement test developed expressly for this Project.

2. Administration of the Metropolitan Readiness Test to children entering the first grade, some of

whom had participated in Head Start classes using the experimental curriculum.

3. Participant teacher reactions to the experimental curriculum elicited at the end of the 1969 school year.

3. Delimitations

The results of this evaluation have limited generalizability to other situations because of the following properties of the testing and service situation:

1. The opening of the 1968-1969 school year was delayed as a consequence of the 1968 teachers strike in New York City. Even after classes resumed, interpersonal tensions and problems persisted which shaped, in part, the experience of the children and teachers in the experimental curriculum.

2. The lateness of school opening and the general emotional climate of the community complicated the process of obtaining preschool settings that would cooperate in the experimental program. As a result, the schools which participated in the 1968-1969 academic year may not be representative of

schools throughout New York City's underprivileged areas.

3. For administrative reasons, comparison subjects were concentrated in one school. Differences in the proportion of black pupils in the experimental and comparison groups rendered the comparison group less applicable than would have been desirable.

4. Most of the teachers who participated in the use of the experimental curriculum were inexperienced in its use and had a need for additional intensive training.

5. The teachers were inexperienced in the administration and scoring of some of the evaluation instruments, especially the Child Behavior Test.

6. The Child Behavior Test was still under development while being used to evaluate Project results.

7. Although the experimental curriculum had achieved a satisfactory degree of stability, it was still being altered in some respects during the 1968-1969 academic year.

8. As a result of practical management problems, only

a part of the children in the four experimental schools received administrations of one or more of the evaluation instruments. Furthermore, some children were administered certain of the instruments, but not others.

9. The pre-kindergarten evaluation sample was considerably smaller than the kindergarten sample.

In view of the delimitations noted above, the findings reported should be viewed as tentative results subject to subsequent replication.

4. The Pre-test-Post-test Comparisons

Pre-test scores on the Peabody Picture Vocabulary Test and the Child Behavior Test did not differentiate the experimental and comparison subjects in either the pre-kindergarten or kindergarten subgroups. However, the two instruments did differentiate the pre-kindergarten from the kindergarten subgroups on the pre-test with the latter achieving significantly higher test scores.

The Peabody Picture Vocabulary Pre-Test and Post-Test Results

Pre-Kindergarten Group

	Experimentals (N=21)		Comparisons (N=19)	
	Mean	s.d.	Mean	s.d.
Pre-test	30.3	13.4	31.2	11.5
Post-test	33.8	14.2	42.5	10.8
Difference	+3.5		+11.3	

Kindergarten Group

	Experimentals (N=104)		Comparisons (N=34)	
Pre-test	37.0	13.7	45.1	11.3
Post-test	43.0	12.7	49.9	9.1
Difference	+6.0		+4.8	

An analysis of covariance yeilded an F of 1.762 (df Num=3; df Den=169). Not significant at the 5% level.

The Child Behavior Test

In view of the limited applicability of standardized instruments currently available for evaluating pre-school outcomes, an attempt was made by the Project to evolve a new instrument that might be more sensitive to the changes presumed to occur as a result of pre-school experiences. The product of this effort, the Child Behavior Test, is an achievement examination administered individually to pre-school children comprising items that are related to, but not identical with, the materials in the experimental curriculum. A description of the test, sample of the instructions for administering it, and the scoring sheet appear in the Appendix. In developing this measure, the Project staff found that the test tasks could be handled by disadvantaged children aged 4 and 5 years, that the instrument differentiated the 4-year level from the 5-year level, and that it had good reliability, and that it tapped cognitive and behavioral variables that were a target of the experimental curriculum. Since development of the instrument has not yet been completed, the findings reported below should be viewed as tentative.

Pre-Kindergarten Group

	Experimentals (N=20)		Comparisons (N=19)	
	Mean	s.d.	Mean	s.d.
Pre-test	26.6	11.1	19.6	9.1
Post-test	43.1	12.0	32.1	10.3
Difference	16.5		12.5	

Kindergarten Group

	Experimentals (N=104)		Comparisons (N=20)	
	Mean	s.d.	Mean	s.d.
Pre-test	33.8	12.0	39.6	9.9
Post-test	44.9	10.2	49.3	8.2
Difference	11.1		9.7	

An analysis of covariance yielded an F of 0.841 (df Num=3; df Den=169). Not significant at the 5% level.

Insofar as these two instruments are concerned (as well as scores on the Draw-a-Man Test that were so similar for the Pre- and Post-test that an analysis of covariance was not conducted), the children in the experimental curriculum did not seem to achieve significantly higher scores than children who had participated in other pre-school public school experiences.

Items in the Child Behavior Test were clustered in four groups based upon staff judgment of similarities and differences in the abilities they tapped. These four subscores were labeled as follows:

Group 1	Language
Group 2	Reading - Writing
Group 3	Patterning - Classification
Group 4	Mathematics

Since only a relatively small number of pre-kindergarten cases were available for analysis of subgroup test scores, specific statements about this subgroup cannot be made at this time. However, inspection suggests that the experimental group may later be found to achieve greater growth in the abilities measured by subtests 2 (reading - writing) and 3 (patterning - classification). In the kindergarten group, which was larger in size, improved scores for the experimental group as compared to the comparisons appeared primarily in subtest 3 (patterning - classification).

5. The Metropolitan Readiness Test

At the time of entry into the first grade, 41 children who had participated in the experimental curriculum and 244 who had not were given the Metropolitan Readiness Test. These children were enrolled in the first grade of three different public schools.

	Mean Score	s.d.
Experimental Curriculum (N=41)	55.1	10.0
Others (N=24)	49.1	10.0

t = 2.33, significant at the .05 level.

In terms of readiness for first grade as measured by the Metropolitan Readiness Test, first-grade children who participated in the experimental curriculum functioned at a more favorable level than first-grade children who did not.

6. Teacher Reactions to the Experimental Curriculum

Sixteen classroom teachers who had worked with the experimental curriculum for a minimum of five months during the 1968-1969 academic year, responded to an incomplete sentences blank providing verbal stimuli regarding the experimental curriculum. Their responses are reported below:

1. My experience suggests that the new curriculum:

a.	Is a worthwhile instructional tool	10
b.	Is neither a worthwhile tool nor a negative one	4
c.	Is a negative tool	1
d.	No response	1

2. The best thing about the new curriculum is:

a.	Its content	8
b.	The manner in which it organizes instruction	4

c.	The materials developed for it	4

3. The worst thing about the new curriculum is:

a.	It has to be strengthened in certain content areas	7
b.	It has to be strengthened in relation to certain instructional procedures	7
c.	It has to be strengthened in relation to the responses of the children to it	1
d.	No response	1

4. The children's reactions to the new curriculum are:

a.	Positive and enthusiastic	7
b.	Some positive and some negative, depending on the activity	7
c.	Negative as manifested by boredom or short attention-span	2

5. The organization of the new curriculum is:

a.	Good to excellent	11
b.	Adequate but needs improvement	2
c.	Too highly structured	2
d.	No response	1

6. What the new curriculum achieves best with children is:

a.	Development of independence, freedom and cofidence	7
b.	Development of academic skills and concepts	4
c.	Improvement of communication abilities	2
d.	Improvement in attitude toward learning	2
e.	Improvement in awareness and alertness	1

7. What the new curriculum seems to fail to achieve with children is:

a.	The development of creative art abilities	4
b.	Self-control and group awareness	3
c.	Competence in the traditional school subjects	3
d.	Skills that carry over into other activities	3
e.	No response	1

8. If I were asked to use the new curriculum next year, I would:

a.	Agree to do so with enthusiasm	8
b.	Agree to do so with modifications	5
c.	Use it if provided with additional training in it	2
d.	Prefer not to use it	1

9. Compared to what is usually done in classrooms like mine, the new curriculum:

a.	Provides more structure and purpose	9
b.	Offers more opportunities for building depth of learning and skills for the individual child	4
c.	Offers new experiences for children	3

10. In regard to the new curriculum, the parents of my pupils:

a.	Are enthusiastic and interested	8
b.	Have expressed no special feelings	7
c.	No response	1

11. If I had my way, I would change the new curriculum by:

a.	Modifying or adding to the content	[illegible]
b.	Changing the structure	4
c.	No response	3

12. The curriculum guides developed for the new curriculum are:

a.	Helpful and explicit	10
b.	Difficult	2
c.	Wordy	2
d.	No response	2

13. The training given to the teachers in the use of the new curriculum was:

a.	Worthwhile and useful	8
b.	All right but would be improved by demonstrations in actual classrooms and teacher workshops	4
c.	Inadequate	4

14. As far as children in the Inner City are concerned, the new curriculum is:

a.	Relevant and worthwhile	14
b.	Inappropriate	1
c.	No response	1

15. The thing that they ought to do next with the new curriculum is:

a.	Rewrite and improve it	8
b.	No response	4
c.	Extend it into the elementary school	3

d. Re-evaluate it	1

16. The part of the new curriculum that I would drop is:

a. The science content	5
b. No response	5
c. Nothing	4
d. The music content	1
e. The tests	1

17. The new curriculum is especially useful with children who:

a. Like to work and take initiative	6
b. Have ability but lack confidence	4
c. Are slow-learners especially in language and communication	4
d. Are very fast or very slow learners	1
e. No response	1

18. The new curriculum is least useful with children who:

a. Have suffered language deprivation	10
b. Are capable of learning by themselves	4
c. No response	2

19. The new curriculum is harder to teach because:

a. Of the management problems of working with small groups and individual children	9
b. Of the adjustments a teacher has to make to new procedures and materials	3
c. Of the preparation of materials and records that is required	2

d. It is not harder to teach 1

e. It is inappropriate for children 1

20. The new curriculum makes it easier to teach, in that it is:

a. Planned and structured for the teacher 7

b. Children respond well to it 4

c. No response 3

d. It is not easier to teach with it 2

21. If the principal of my school asked me for a recommendation about the new curriculum, my response would be:

a. It is good to excellent 10

b. I would like to use some of it, combining it with my own ideas 3

c. I would like it if we could add staff or reduce class size 2

d. I would prefer the methods I usually use to teach 1

22. For the future, the new curriculum:

a. Should continue to be used with modification 7

b. Should be widely used in some form in the elementary school 3

c. Should provide for improved training of teachers and teaching aides

d. No response

The sixteen teachers who had used the experimental curriculum in their classrooms during the 1968-1969 academic year completed a

23-item semantic differential schedule. The items for the schedule were selected on the basis of their relevance for the curriculum evaluation effort. For each item the teachers were asked to express their feelings about the curriculum by circling the appropriate number that corresponded most closely to their perception of the curriculum -- 7 (most like the characteristic noted in the left margin) 6 5 4 3 2 or 1 (most like the opposite of "7"). For example, item 2 read: weak 7 6 5 4 3 2 1 strong. The numerical scores for each of the items were recorded and means and standard deviations were computed. These appear below:

Number	Item Description	Mean Score	Standard Deviation
22	Coordinated	6.1	1.0
3	Organized	6.0	1.2
1	Relevant	5.9	1.3
7	Child-centered	5.9	1.3
5	Interesting	5.6	1.2
11	Inner City	5.5	2.1
9	Successful	5.4	2.9
4	Restricted	4.5	1.6
16	Convenient	4.4	1.1
8	Cold	4.3	1.6
20	Child-pleasing	3.9	1.3
18	Easily mastered	3.9	1.3
6	Not adapted	3.3	1.5

Number	Item Description	Mean Score	Standard Deviation
2	Weak	3.2	1.5
13	Easy work	2.9	1.1
12	Subject matter	2.9	1.7
15	Growth-inhibiting for teachers	2.1	1.4
21	Not teachable	2.0	0.9
23	Not promising	2.0	1.1
17	Not re-usable	1.9	1.2
14	Growth-inhibiting for children	1.9	1.0
10	Outdated	1.9	1.3
19	Not worth using again	1.8	1.0

An analysis of extreme mean scores (high = 5.5-7.0; low = 1.0-2.5) suggests that the teachers who used the experimental curriculum had the following constellation of attitudes toward it:

1. Although the curriculum is imperfect, it is a new and promising tool worth using again. (Items 10, 17, 19, 21, 23)
2. It is well organized and coordinated. (Items 3, 22)
3. It is relevant for our times in urban areas. (Items 1, 11)
4. It promotes growth in both teachers and children. (Items 14, 15)
5. It focuses upon the interests and needs of children. (Items 5, 7)

Most of the standard deviations are modest in size, suggesting a high degree of agreement among the respondents. However, as manifested by their relatively high standard deviations, differences of opinion among the respondents were greatest in relation to the success of the curriculum (Item 9) and its relevance for Inner City children (Item 11).

Summary

The incomplete sentence and semantic differential teacher responses reflect the following teacher attitudes toward the new curriculum:

1. It is perceived as being more highly structured organized, and coordinated than other approaches commonly used in the pre-kindergarten and kindergarten Head Start programs.
2. It is an emerging tool that should be subjected to continuing evaluation and revision.
3. Although children's skills and concepts are strengthened through use of the curriculum, its greatest impact is perceived to be upon the development of autonomous learning behaviors.
4. With one or two exceptions, re-use of the curriculum is advocated if stronger teacher training is instituted and if modifications in content and technique are incorporated in it.

5. It is relevant for Inner City children, but there is no general agreement as to the sub-groups in the Inner City for which it is most appropriate.
6. It requires more effort and skill on the part of the teacher despite providing her with structure and direction.
7. On the whole, teacher response to the new curriculum is favorable.

7. Discussion

This evaluation has not yet solved the problem of selecting suitable instruments for assessing the objectives of a structured experimental Head Start curriculum. Not the Peabody Picture Vocabulary Test, nor the Draw-a-Man Test, nor the Child Behavior Test differentiated either kindergarten or pre-kindergarten children who had participated in the experimental curriculum from those who had not. Consequently, it cannot be stated at this time that the curriculum promotes child growth to any greater degree than the comparison condition, although the measures used to ascertain this may lack the degree of precision and relevance required.

Yet, indications from the Metropolitan Readiness Test and teacher reactions to the experimental curriculum suggest that the curriculum possibly has special value in working with pre-school disadvantaged children. Consequently, the search for more sensitive instruments to assess Head Start outcomes should continue until such time as all concerned are persuaded that precise and relevant measures are indeed available and have been employed properly to evaluate learnings at this level. However, another possibility should be considered. The experimental curriculum is highly cognitive in orientation. Piaget and some of his associates have taken the position that school instruction has limited value, if any, in accelerating cognitive growth. Therefore, the findings, in this evaluation may indirectly confirm their belief, that despite the fact that growth in some areas of child development occur as a result of instruction, for example, in rote skills, such growth may not be as readily observed in the cognitive area. Obvriously, the data presented in this evaluation shed little light on this question other than to suggest that further research concerning this matter should be conducted.

Finally, the delimitations of this evaluation should be taken into account in considering the results. Initial observations of the curriculum in action in the 1969-1970 academic year when the school situation, in general, was more stable, the teachers were better prepared to handle the curriculum, and the curriculum had been refined further, all suggest that somewhat different results might be obtained under more favorable conditions than those that prevailed in 1968-1969. At present, however, two general findings tend to support the experimental curriculum:

1. First-grade children who participated in it prior to school entry function at higher levels on the Metropolitan Readiness Test than children who did not.
2. The experimental curriculum is teachable. Most of of the teachers using it report favorable reactions to it and indicate a willingness to continue using it in their classes.

APPENDIX B

PROJECT CHILD: THE PARENT PROJECT

HELEN F. ROBISON

JUNE 1969

PS 007282

APPENDIX B

Project CHILD: The Parent Project

by Helen F. Robinson.[1]

Of the four New York City public schools where CUE's Project CHILD[2] was complemented during the 1968-69 academic year, one school in the South Bronx was selected as a promising site in which to develop a related parent project.[3] Factors which appeared to favor such a project included the existence of a functioning parent group which had been collaborating with the school administration from the beginning of the school year, including the period of the teachers' union strike in the fall of 1968 and an enthusiastic administrative and supervisory staff which welcomed the idea of such a project. The school is a large, modern plant, overcrowded despite the large number of portable classroom buildings which clutter the extensive, paved outdoor playground. Public housing developments and some of the dreariest tenement houses in New York City surround this large, contemporary school building.

While the child population in this school was almost entirely black, with a small sprinkling of children of Spanish-speaking Puerto Rican families, an increasing proportion of the school population is being drawn from Puerto Rican families, noticeable especially in the earlier school grades, as young Spanish-speaking families enter their children in school. Family mobility is extremely high in this neighborhood and child turnover in school is equally great.

The parent project had these goals:

1. To help parents understand the new curriculum design which the prekindergarten and kindergarten teachers were implementing in the classroom that year.
    a. To acquire information about the details of their children's school learning.
    b. To evaluate academic goals and programs.
    c. To compare and assess goals of different programs.
    d. To view educational procedures critically and objectively.
2. To involve parents in developing a curriculum for home teaching of their own children, to parallel and reinforce the school program.
    a. To view oneself as a competent teacher of one's own children.
    b. To acquire information about the kinds of home experiences which may be educative for the young child.

c. To become creative and imaginative in an essentially intellectual enterprise, that is, planning for home teaching.

3. To produce a written version of a home curriculum which might be shared with parents and teachers in other schools and in other communities.

   a. To use skills of reading, writing, editing and typing.

   b. To value one's product as worthy of duplication and sharing with teachers and other parents.

   c. To deal with teachers as equals.

   d. To approach the school as an institution **amenable to** parents' wishes and ideas.

These goals were presented in general form to the parents as suggestions. Parents were offered open-ended possibilities to plan for increasing their own competence as home teachers, or for otherwise magnifying their role in the child's education. Emphasis was on valuing the key parental contribution to the child's education and on finding ways to raise the power of this contribution, for academic purposes. Forms of teacher-school-parent collaboration were undefined, in the hope that fluidity would keep more options open for exploration.

Project CHILD staff assigned to the parent project included the project director, Dr. Helen Robinson, who designed this parent project, arranged for its implementation, led several of the meetings, planned from week to week for further steps and specific activities, and related aspects of this project to the larger program with teachers, Brenda Wiggins, who was responsible for coordinating the parent program from its inception to its close and Maureen Herman, who led several mathematics workshops for the parent group. Both of these staff members were doctoral candidates at Teachers College, Columbia University, Miss Wiggins in early childhood education and Mrs. Herman in mathematics education. Miss Wiggins not only developed the program with the parents and coordinated all parent activities but she also played a major role in acting as liaison between the parents' group and the school administrative and supervisory staff and between the parents' group and the district superintendent's staff. There was magnificent support from several members of the latter staff, notably the district early childhood supervisory Mrs. Anne Kaplan, the district social worker assigned to prekindergarten classes, Mrs. Vaughn, the district parent program coordinator, Mrs. Wiley.

School support for the parent project was also most helpful, including the principal, the assistant principal in charge of the early childhood grades, the prekindergarten family assistant, the school librarian, the human relations coordinator and other members of the school staff. School administrative and supervisory personnel attended many meetings and contributed to discussions.

Initiation of Parent Project

Early in January 1969, letters were sent by the school to all parents of prekindergarten and kindergarten children. At that time there were two prekindergarten classes assigned to one teacher, and eight kindergarten classes assigned to four teachers. All five teachers were participating in implementing the new curriculum design in this school. Some parents were already employed as teacher aides or in other paraprofessional functions in the school. The letter of invitation, which was also translated into Spanish, invited parents to join the CUE Project CHILD staff in planning a parent program at a meeting at the school on the morning of January 7th.

Thirty-two mothers attended the first meeting and some characteristics of this population were ascertained from a questionnaire distributed to the parents by Miss Wiggins, and from personal interviews by Miss Wiggins with some of these parents in the following two weeks. Two mothers were Spanish-speaking at this time, with little English or none. One of these mothers brought her high school daughter to act as interpreter and this young woman not only offered Spanish translation to the mothers who were most comfortable in Spanish but quickly became involved personally in various project activities, such as typing and making puppets.

Some characteristics of the 28 mothers who returned questionnaire forms appear on Table I. The majority of these women were in the 25-30 age range and all but 6 were black. This is probably unrepresentative of the total population of parents with children in the prekindergarten and kindergarten classes in this school. Most of these women had either high school graduation or several years of high school attendance, with family incomes reported mostly over $5,000 with only 6 families reporting smaller incomes. It is not known whether the mothers who failed to answer this question were on welfare, nor whether any of the other families received all or part of their incomes from this source.

It is surprising that this group represented considerable periods of residence in New York City, all but one for 6 years or more, and 21 for 10 years or more. This does not contradict earlier statements about high mobility, since these families tend to move frequently, changing school districts or schools, as they try to find better housing accomodations than the unsatisfactory ones they usually have. Family size was small, mostly 3 children or less, with only 3 families reporting as many as 4

TABLE I

CUE Project CHILD: Selected Characteristics of Parent Participants in Parent Project

Spring 1969

Age:

Range	No. of Parents
under 25	3
25 - 39	22
40 - 49	2
over 49	1
Total	28

Place of Birth:

Location	No. of Parents
US-South	15
US-North	7
Puerto Rico	6
Total	28

Estimated family income:

R nge	No. of Parents
under $5,000	6
$5,000 to $6,999	13
$7,000 to $10,000	5
no response	4
Total	28

Highest grade completed in school:

Grade	No. of Parents
no response	3
lower than 9th	3
10th	3
11th	5
12th	13
attending college	1
Total	28

Duration of residence in New York City:

R nge: No. of years	No. of Parents
2 - 5	1
6 - 9	6
10 - 19	9
20 - 29	11
30 or more	1
Total	28

No. of children in family:

No. of children	No. of parents
2 or 1	15
3	11
4	2
Total	28

Source: Questionnaire administered to parents in January 1969, at the school where this parent project was developed.

children. It is likely that this group is unrepresentative of the family population in the school, since size of family, income, duration of residence and knowledge of English were probably selective factors, tending to sieve out the poorer, the mothers of larger families, the newest immigrants and those least comfortable with school and with the English language.

Fifteen mothers were born in various southern states, 7 in various northern states and 6 were born in Puerto Rico. Queried as to membership in "social organizations", only one reported such membership, one did not respond and the rest indicated they held no membership social organizations. Only 2 mothers reported membership in community action organizations.

Of the 32 mothers who attended the first two-hour weekly meeting, only 10 parents attended 13 or more sessions. Only 16 mothers attended 7 or more sessions. Since young children tend to have higher rates of school absenteeism than older children, because of the prevalence of colds and infectious diseases, it was not surprising that mothers' absentee rates were also high. Another factor which contributed to this situation was the school's employment of six of these mothers as paid paraprofessionals, during the spring school session. Most of the mothers had children in prekindergarten classes and a few were mothers of kindergarten children. The over-representation of prekindergarten parents appeared to be due to the successful efforts of the prekindergarten teacher and her family assistant to involve parents in school activities and to make them feel welcome.

During the first meeting it was announced that the parents would receive $2 per hour for a 2-hour weekly session. Although the parents were not advised of this stipend in the initial invitation, they choroused their pleasure. Yet the stipend was neither the sole nor the major attraction, since theparents were initially ignorant of it and they subsequently decided to stay an additional hour without an increment of the stipend. Nevertheless, the parents were very pleased that there was a stipend.

Another feature of the program was the provision of a baby sitter at school At first, there were problems in obtaining a regular baby sitter and in finding a room for this purpose. At meetings without baby sitters, some parents' attention was divided between their children and the activities of the program. The children became significant contributors when they demonstrated the activities which were under discussion. By the time the program reached its mid-point, a regular baby sitter was hired. This made it possible to structure meetings in a more orderly fashion, and to invite children to visit for demonstrations, as needed. The cooperation of the prekindergarten teacher resolved the problem of finding a room for baby sitting because she invited the sitter and children into her classroom. Cooperation from teaching staff within the school also provided the parent group with a resolution to the problem of a room assignment. The solution added some disjointedness to the parent sessions, because of the requirement to move from one room to another, using rooms temporarily vacant for one-hour periods. One of these rooms was the library and an important divided was the gracious interest of the librarian in cooperating with the project parent, in suggesting and offering appropriate books for parents' use.

The room problem led to another dividend. A committee of parents was formed within the group and this committee took the responsibility to find a solution. This was one of a series of instances in which parents exercised initiative in dealing successfully with school staff. With the administration's help, a room was finally assigned for the exclusive use of the parent project on Tuesday mornings. Coffee and cake, provided by project staff, was served at the opening of each meeting and helped to set the informal tone which prevailed throughout the meetings.

Intermittently, fliers were sent home as reminders of meetings and of program plans. These seemed to be helpful means of communication and often attendance increased slightly after such a notice. However, heavy rain and snowfall often caused attendance to drop.

Program Content

The content of the parent project was primarily a study of the curriculum, materials and teaching methodologies of the new curriculum design which was being followed by the prekindergarten and kindergarten teachers in the school. While this was the major content of the parent project, other content, chiefly introduced initially by the parents was featured by the project staff as it seemed appropriate and fruitful. One important concern which the parents introduced early was an interest in learning about community agencies which might be of help to families in the school in their social, political and economic concerns. Another interest was parent-teacher relationships in the school, and problems relating to teaching and learning of older children in higher grades in the school.

Such political concerns were occasionally pursued as problems of school decentralization in New York City and problems of continued federal funding of Head Start. The staff's role was chiefly to help parents view themselves as competent citizens, just as the prime goal was to help parents view themselves as competent home teachers of their own children.

Procedures

A range of procedures was employed to help parents make progress toward the parent project's goals. These included freewheeling discussions, lectures, workshops, role-playing, demonstrations, committee work, trips and group planning, evaluation of and contribution to a variety of end-products.

The project was generally goal-oriented and product-producing. Parents were encouraged to make decisions about specific goals, within the project framework, and about specific products. Staff freely made suggestions, facilitated the parents' activities and assisted in fashioning the planned products, but parents were always treated as colleagues and equals, whose ideas were continually sought and accepted.

Goals which were defined by parents, with project staff assistance, included the following:

1. Collection of information about helpful community agencies which parents might want to know about and consult.
2. Development of understandings about the new prekindergarten and kindergarten curriculum, especially in its language and mathematics areas.
3. Development of suggestions for parent teaching of their own children at home.
4. Identification of ways parents could help teachers to educate the children more effectively in school.

Products associated with these goals, which were also identified early in the project, included these:

1. Production of a directory of community agencies, for distribution to parents in the school.
2. Production of a parents' manual for home teaching of children, to share with other parents.
3. Production of material to aid teachers in classroom teaching, such as puppets, puppet dialogues on themes familiar to the children, Spanish-language tapes of stories used in the classrooms and a collection of chants familiar to children in this community, for use in school.

Results

The parent group was enthusiastic about developing products. They set up committees, took responsibility for various tasks, and worked to fashion the planned products, with encouragement and assistance from project staff. All parent goals were achieved by the time the last meetings were held in May.

Since the total elapsed time of this project was little more than four months, the accomplishments of this group were substantial.

A directory of community agencies was assembled and distributed to parents. This directory not only listed these agencies but briefly described functions and types of assistance available. Addresses, telephone numbers and where possible, the name of the person to be contacted, were included. Governmental agencies were listed, as well as established voluntary social service agencies and, of course, parent and community organizations of a religious, social or political character.

A booklet was completed by a parents' committee and distributed to the interested parents in the school as a parent manual for home teaching of children. This booklet included project staff contributions on learning goals and procedures and parent and staff contributions of specific home experiences which naturally lend themselves to home teaching, featuring such regularly recurring home activities as cooking, table setting, marketing and sorting of laundry.

Several products were also completed and offered to teachers for classroom use, including Spanish-language story tapes, parent-made puppets, parent-written puppet dialogues and stories and tape recorded chants. The teachers in the school were appreciative of the puppets and the Spanish-language tapes. The teachers saw little merit in the dialogues, stories and chants because they saw nothing new or unusual in this material. As the teachers develop more interest in collaboration with parents, they might offer these mothers sincere admiration for their progress in learning to produce and use this simple verbal material.

An explicit achievement was an obvious increase in parent knowledgeability about curriculum for young children and classroom use of materials for language and concept development. Parents became articulate and specific about these young children's learning, where they had been vague and inarticulate before.

By the time the parent math workshops began, the teachers had already had several math workshops in the course of their inservice training meetings with project staff. At this point, however, the teachers requested additional math workshops, indicating concern that the parents might be learning some mathematics which had not been reviewed with them. The teachers' request was granted, although it was stressed that their additional math training was a repeat of several previous sessions. The result, nevertheless, of parent study of detailed aspects of the curriculum, was to create tension between the teachers and the parents' group.

It might be more constructive, in future replications of such a parent project, to plan for joint teacher-parent study of a new curriculum, to reduce tension between the two groups. An alternative, which would be desirable in many situations, would be for teachers to take the responsibility for a series of workshops with parents on new curriculum materials.

An unanticipated product of the parent project was improvement in relationships, understandings and collaboration between black and Puerto-Rican parents, where there had previously been considerable hostility. A further result was an increased knowledgeability among the group in parent-school-teacher relationships and forms and purposes of collaboration. The parent group requested that the school arrange a meeting for their committee with first grade and kindergarten teachers, to discuss program articulation and continued forms of parent collaboration in schooling. The parents freely offered to secure volunteers to help first grade teachers to continue the tutorial and individual instruction featured in the new curriculum design for the prekindergarten and kindergarten children. The parents also offered to help teachers to select culturally relevant content, appropriate for this child population, and to assist teachers in classroom implementation.

Another result appeared to be increased knowledgeability about improving their children's educational experiences in school and increased determination to collaborate with the school to bring about better academic performance. Responses to a questionnaire indicated that some mothers felt increased self-confidence, as a result of this project. Mothers expressed improved perceptions of themselves as adequate home teachers of their children.

Parent Group: Early Meetings

The first few meetings were geared to promoting communication within the parent group and opening channels to parent decision-making, committee work and exercise of leadership. The project staff sought to convey respect for parent's autonomy, need for guidance from parents as to fruitful procedures and programs and clear focus on the school as the arena of the project's concerns.

Resource people within the school community were invited to attend the second meeting, to stimulate discussion and communication in the group. These resource people included the school PTA president, the district prekindergarten social worker and the co-chairman of a parent self-help clinic in the school. These visitors defined their own roles for the parents and helped the parents to release some of their real concerns. Parents felt free to raise such questions as these:

1. Why do routine activities go on during "parents' day", if stimulating programs are available?

2. Is Project CHILD trying out their new program with the same old kindergarten teachers or are they bringing in new ones?

3. What kind of inservice teacher training is Project CHILD offering?

4. If we make suggestions, will they be accepted or ignored by the teachers and administration?

5. How does Project CHILD help Spanish-speaking children?

6. If a child is familiar with "Rock and Roll" why not provide music instruction around his rock and roll experiences?

These questions generated a lively discussion, especially the last one, since some parents said their children heard enough "rock and roll" music at home and should find new musical experiences available at school. An atmosphere of open discussion was established and, as parents participated more spontaneously, it became natural to suggest that committees be established and that parents volunteer to chair and serve on these committees, to accomplish the various tasks parents agreed on. Since there was great interest in learning more about community agencies, a committee was quickly established to gather information and to type and duplicate the directory.

Early in February, after considerable discussion about language development, additional committees were established to make puppets and to plan cooking experiences, as vehicles of language work with young children. Some parents became involved in planning cooking workshops for later meetings, which required bringing needed cooking equipment, ingredients and recipes. Other mothers became interested in making puppets and were planning to collect materials for a puppet-making workshop. Staff members, and later parents, emphasized that these experiences were not ends in themselves but means of providing children with meaningful experiences to increase their understandings as well as to improve vocabulary and standard English grammar use. Cooking, marketing, puppetry, television programs, children's literature and child-dictated stories were featured as varied learning situations in which concepts and skills could be acquired playfully and meaningfully.

Specifically, it was emphasized that marketing and cooking experiences provided children with opportunities to classify objects, to fashion concepts of "same" and "different", to recall a sequence of events in order, to follow the transformation of foods from a raw to a cooked state and to associate new words with personal experiences of a vivid, multi-sensory character. It was interesting that it was necessary to reiterate the educational values and goals of the puppetry and cooking workshops, because some parents misinterpreted these as primarily featuring home economics. For example, some mothers began to bring their own sewing and knitting and others suggested elaborate recipes for classroom replication. Reminders were needed, on a regular basis, that all workshops were to feature experiences which parents, or teachers, could use for explicit educational values for young children. Staff reminders were gentle to keep plans within the original framework, that is, to develop educational procedures which could be used at home. Leeway for spontaneous interchange of recipes and small talk encouraged the shyer mothers to talk more freely and thus to involve themselves in the program.

Workshops

Three types of workshop were held during the series of weekly meetings. One type featured making puppets and practicing using them with young children. Some mothers enjoyed this activity greatly, produced puppets of different kinds and exhibited some puppets they made at home. A second series of workshops centered on cooking experiences, recipe-writing and planning for educational uses of home or school cooking experiences with children. The third series, on mathematics experiences for young children, offered mothers the opportunity to pursue an unfamiliar educational area, with leadership from the project staff.

Puppetry

Some parents sewed puppets. Others brought in cut-out patterns and sewing materials and shared these with mothers interested in sewing. Some mothers contributed dialogues about familiar home situations, such as getting up in the morning and housecleaning, as models for guiding children's puppet play.

One very active and verbal mother, who was also a college student, shared her experiences with puppet play in the prekindergarten room, the only classroom of the five preschool classes in this school where parents were actively invited to participate in the classroom. She said, "The children had no trouble assuming a role. One boy became a policeman and this experience certainly did bring him out." This mother demonstrated child use of puppets by asking her own daughter to develop a spontaneous story with a puppet, which she happily did. When Miss Wiggins suggested the mother write her child's story in the form of a little booklet, for the child to illustrate, this mother quickly cooperated and the finished booklet delighted everyone.

Other mothers brought in pamphlets on arts and crafts, with instructions on making puppets, and described the activities they were pursuing at home and the stories their children developed. One mother brought a tape recording she had made of her children's singing and reciting nursery rhymes at home.

Mothers were encouraged by the voluntary demonstrations and asked to borrow cassette tape recorders from school to record children's stories at home. While this proposal was agreed to as feasible by all concerned, somehow it never materialized, because arrangements at school were not clear and because mothers did not find it convenient to come to school to pick up the tape recorder when it was available for their use.

Parents were able to identify some specific aspects of language development which could be fostered in puppet play, as project staff assisted in clarifying and verbalizing them. These including verbalizing puppet actions, differentiating character and dialogue, matching action to the dialogue, differentiating what is real from what is fantasy, identifying the sequence of actions temporally and vocabulary development.

Discussions of children's spontaneous stories led to interest in children's literature and discussion about characteristics of quality in books for young children, guides for parent purchases of such books, and values of reading stories to children. Miss Wiggins read one children's book, to demonstrate use of intonation and dramatization in reading to young children.

Since some meetings were held in the school library, and since the librarian was very gracious and helpful, the parent's interest in children's literature was encouraged by invitations to browse in the library, noting books which were either literary or informational. Parents were invited by the librarian to borrow books. He described the sign-out procedure and his system for categorizing books. Four parents borrowed books at that session. The librarian also showed a filmstrip with a synchronized record, which one mother expressed a desire to purchase.

Further discussion led to suggestions that expensively-packaged commercial equipment were elaborations of material which could be produced at home. The prekindergarten teacher joined the meeting briefly and demonstrated a "TV" device used for storytelling in her classroom, which consisted simply of a box with two paper rolls.

While some workshop sessions included cooking and puppet-making, the concentration on language development was fed by both activities. The alternative activities also led to increased parent participation. Preplanned and spontaneous activities combined to keep interest and involvement strong.

Attendance at these workshops by school personnel from the district superintendent's office was helpful in many ways, besides their interest and suggestions. The district family program coordinator kept the group informed of meetings and conferences she thought of value to the participants. She announced an all-day Saturday spring meeting at Teacher College sponsored jointly by two professional organizations of early childhood teachers and stated that there was some money available to reimburse mothers for registration fees at this conference. The group held an election to send representatives to this conference, indicating the improvement in black-Puerto Rican relationships by agreeing to the need to have both groups represented. Sending representatives to a professional teacher conference had important symbolic value for these mothers, both in expressing their own legitimate interests in teaching and its effects on their children, and in penetrating a professional world of higher education which was previously unknown to them.

Cooking

The cooking workshops led to a turning point in relationships among the black and Puerto Rican parents, as they learned more about each other's culinary arts. For example, a Puerto Rican mother, who had offered to cook a fried sweet banana dish, known as platanos, was almost too shy to start her demonstration. When several black parents indicated their interest in this dish, she relaxed and said jokingly, "This is a groovy change from the usual", meaning rice and beans.

As the parents increasingly viewed these cooking experiences as educational vehicles for children, they began to suggest specific learnings which could be fostered. When the featured recipe was for "arepas", a Spanish dumpling, parents noted that size and shape relationships could be developed as children shaped these dumplings. Parents began to write their recipes, to contribute them to the booklet to be developed. At first, some mothers were embarrassed about their poor spelling but, with encouragement from the group, such feeling were soon overcome.

The cooking workshops were not only the most popular and enjoyable meetings but they also brought to a high point parent willingness to volunteer, to take responsibility, to bring in equipment, ingredents, written recipes and suggestions for educative procedures. Parent enjoyment in their activities and their increasing spontaneity were accompanied by more open expression of concerns. One parent began to talk about her desire for a premanent parent room in the school. This triggered other remarks, including parent concern for continuity of Project CHILD, for its continued funding and for the establishment of channels of communication between parents and teachers. This thread was picked up several weeks later, with the request for project staff to arrange a meeting with teachers and an election of a committee of six parents to attend such a meeting.

There was no doubt that the cooking workshops drew on parent expertise which was readily available and of great interest. Parent feelings of competence in this area probably contributed to their willingness and intense interest in experiencing several mathematics workshops.

Mathematics Workshops

Three consecutive mathematics workshops were led by Mrs. Maureen Herman, project staff member, in April. These sessions, in addition to many others, were attended by the district early childhood supervisor. The prekindergarten teacher was able to attend one of these workshops.

The first two workshops focused on exploring such materials as patterns cards and colored chips, sorting objects according to number rather than size, and grouping objects. These were tasks that the children were experiencing in school and parents showed their interest by asking questions, by their request to have additional workshops and their willingness to work with the materials and involve themselves in the games which Mrs. Herman structured for them. Some of the questions mothers raised were the following:

1. How do you stop a child from counting on his fingers?
2. What is the difference between a number and a numeral?
3. What is all of this "new" math about?

Mrs. Herman was sensitive to the parents' needs, sharing her own childhood misgivings about math and her present interest and success in the area. She also verbalized the need to accept a child's mode of computation, such as finger counting, as well as suggesting that difficulty in a mathematical operation was often reflective of a lack of internalization of basic concepts. Several parents seemed to be resistant to this explanation, yet they appeared to relax as demonstrations on 1-1 matching and sorting continued.

It was characteristic of parents' questions that these most often related to the school work of their older children. This may have been due to an under-valuing of the young child's intellectual ability or, more likely, to the fact that as a child progressed in the grades, lack of academic achievement was perceived as a more immediate threat to future success.

The third session with Mrs. Herman was devoted to identifying situations in the home in which mathematical learnings could be offered. There were also further questions about Project CHILD, apparently to clarify mothers ideas about the new curriculum.

While the mothers were working with the math materials at one session, one little girl was present who preferred to stay with her mother. She worked quietly with the pattern cards, matching blue and red chips to the blue and red card pattern. Completing the self-chosen task, she invented a pattern of her own, labelled the pattern and proceeded in quiet enjoyment of her work. The mothers were impressed with this unintended demonstration of the young child's ability and interest in this early mathematics work.

Later, another session was devoted to summarizing the math workshop suggestions for home teaching, and to recording these for the proposed parents' manual. An assortment of materials were provided, which parents could readily duplicate at home, such as buttons, mix cartons, and playing cards.

A brief discussion revolved around the offensiveness of card-playing to some parents because of their religious beliefs (particularly the Older Southern Baptist parents). However, it was apparent that other parents had no objections and the issue was resolved when math instruction through card playing was seen as one of many options from which parents could choose.

Parents' contributions to suggestions for home teaching were recorded on the blackboard. Some of these contributions were classified under specific headings: 1-1 matching, same and different groupings; comparison of sets; replication of sets; and number recognition. This enabled parents to see that some activities could be categorized under several headings. Parents mentioned the mathematical value of classifying cans and other articles bought in the supermarket, the sorting of objects in a sewing basket, finding a specific channel on the television set, matching and pairing socks after laundering, setting the table with 1 fork 1 plate and 1 glass to each person, distributing candy so that each child has the same number. Other parents played card games and felt that games such as "war" [4] had several mathematical possibilities. It was further suggested that for this game, the cards in the deck could be limited to the lower value cards so that young children could play without confusion.

Trips

Despite repeated discussions about trips, the group found it difficult to schedule a trip for longer than the school morning. Mothers had to be available to relieve the school baby sitter and to prepare noonday lunches at home. The few parents who attended the Saturday professional conferences at Teachers College, Columbia University, were obviously inspired by their experience and they reported it fully to the group.

A trip was eventually arranged by car, to spend a morning at Teachers College, Columbia University. The two purposes of this trip were to offer the mothers an opportunity to visit the College and to use the College videotape equipment, to view videotapes which had been recorded in their children's classrooms, in order to add further detail to the parents' understandings of the new curriculum design. The mothers commented freely on the educational values of the various materials and instruction they viewed. The parents again indicated their interest in continuing the use of this curriculum in the school and discussed problems of inservice training and materials acquisition. The parents indicated their desire to help, by acquainting teachers with some aspects of the curriculum and by developing a list of materials which might be borrowed. They determined to visit the school's assistant principal, to pursue the matter further, which they did.

The parents expressed pleasure in their visit and used their cameras to photograph each other in front of different buildings. When Miss Wiggins offered to show them the main Columbia campus, they were willing to re-park their cars, since time limits on parking had expired, so that they could see the main campus of Columbia University. Noting that this extra time on the main campus took forty-five minutes, one mother remarked, "Time really flies when you are enjoying yourself".

Evaluation of Parent Project

Evaluation of the parent project was usually informal. Miss Wiggins often chatted with some of the more candid parents, to obtain a measure of feedback from them as to their perceptions of the usefulness and value of the project program.

The prekindergarten family assistant and the district family program specialist were usually quick to relay reactions from parents, as they sensed or heard them. Early in the project, they suggested that parents preferred receiving their project checks at school, because home mail boxes were so often broken into.

Before and after the math workshops, however, Miss Wiggins requested the mothers to complete a questionnaire about their perceptions of their math ability, and about their perceptions of strategies for change in social realities. An illustrative question was: If there is no traffic light on your corner and several children have been hurt by cars which rush through the block would you:

a. Talk about your concern with your neighbors?

b. Hope that parents teach their children how to cross the street carefully?

c. Start a petition to get a traffic light?

d. Call the mayor's office?

Most parents circled letters c or d. However, interpretation of this data must be cautious, because of the known discrepancies found between questionnaire response and actual behavior. The second half of the questionnaire related to parents' educational competence. Most parents felt that teacher suggestions for home activities were helpful in guiding children's learning activities. Parents were explicit about teaching their own children such academically useful material as the names of geometric shapes and of letters of the alphabet, as well as respect for himself and for others. All but one parent felt that the parent program helped them see themselves as contributing members of the program, as teachers of their children at home and as active and contributing members of the school. The mother who responded that the parent program helped her very little indicated that her sparse attendance was the reason for this response.

On a list of activities which had been included in the program, parents were asked to indicate which were "most helpful","moderately helpful", or "not helpful". The activities were" lectures on quality books, meeting the librarian, visiting Teachers College, Columbia University, math workshops, puppet workshops, cooking workshops, writing letters to the press, meeting some of the teachers, making a booklet on parent home teaching, and discussions on developing the program for next year. All but two parents placed all of their responses in the "most helpful" column. These two mothers indicated that the math workshop, cooking workshop, parent booklet and discussions on developing the program for next year were most helpful. In answer to the question, "what do you know now, as a result of the program, that you didn't know before?", parents responded in various ways. Representative statements were:

"The way the math is being taught to the younger child",

"How to prepare different dishes",

"How well the children worked on their own with the CUE materials",

"I more fully realize the practical obstacles involved in introducing any new program into a classroom situation. Time limitation, acceptance by teachers, varying rates of learning among children are all important factors in determining the practical instituting of any new program."

"I always think it's a good thing when people get together and talk and try to get something going that will be useful for everyone."

Mothers expressed their interest in classroom participation with teachers on many occasions, but the prekindergarten teacher was the only one of the five teachers in the project who consistently invited parents into her classroom, made them welcome and encouraged their participation in the instructional program. As the mothers felt increasingly knowledgeable and competent to teach their own children, several of them were eager for classroom work as well. This was a major manifestation of the growth in the parents' ability to deal with school authority figures. It was disappointing to these mothers that their suggestions for volunteer work in the classroom received little encouragement.

Teacher-parent collaboration at school seems an inevitable next step, in improving the child's educational experience in schools in slum areas. Parents need more self-confidence, more skill and knowledgeability in negotiating at school on educational programs and procedures. Oddly, so do teachers. If teachers can be supported in their needs for security and confidence, they may be able to negotiate with parents more skilfully and objectively from positions of strength. A new and more constructive balance in parent-teacher relationships may be in the process of becoming.

Footnotes

1/ This report draws substantially on a draft by Brenda Wiggins, who was the project staff member responsible for the coordination of the parent project.

2/ Project CHILD (Curriculum to Heighten Intellectual and Language Development) is a four-year study of curriculum appropriate for four and five-year-old children in low-income areas. A final version of this curriculum will be published late in 1969 by the Center for Urban Education, 105 Madison Avenue, New York City. Inquiries should be addressed to Mr. James Elsbery.

3/ This report results from work performed under a contract with the United States Department of Health, Education and Welfare, Office of Education, through the good offices of the Center for Urban Education, New York City.

4/ In this card game, children draw a card from a pile, face-up, and the child with the highest card gets the other players' card and the child with the most cards wins the game.

P76C

APPENDIX C

Project Child: Evolution of a Curriculum to Heighten Intellectual and Language Development

PS 002282

Project CHILD: Evolution of a Curriculum To Heighten Intellectual and Language Development

Paper prepared for presentation at NAEYC
National Convention at Salt Lake City, Utah
November 15, 1969

by Helen F. Robison
Associate Professor of Education
Teachers College, Columbia University

I am pleased to acknowledge a large debt to Dr. Sydney L. Schwartz, of Queens College, CUNY, who has collaborated on the written curriculum, inservice teacher training, and data collection since the inception of the project. Dr. Kenneth D. Wann was co-principal researcher until June 1967.

--H.F.R.

Center for Urban Education
105 Madison Avenue
New York, N. Y. 10016

A curriculum cannot be evaluated in the abstract. It must come to life in objective reality before teacher and child behavior can be described, categorized or measured. This is the rock on which many dreams of new and exciting curriculum designs have come to naught. A curriculum design which departs in any major fashion from comfortable and well-established procedures has a tendency to stay on paper. To breath life into this blueprint requires more than curriculum expertise - supervisory and inservice teacher training skills are required but are seldom available to the extent required for major behavior change.

Project CHILD has been a classroom based empirical study of the curriculum needs of young children of the poor, with language and cognitive development as the basic goals. Since 1965, project staff have worked with teachers of four and five year olds, mostly Negro children who speak non-standard English dialects, in New York City's Central Harlem and the South Bronx. This four year effort has produced a final version of a teacher-tested curriculum design which now has the possibility for evaluation of its effects on teacher and child behavior.

The schools participating in the study have been representative New York City Public Schools, staffed and operated in accordance with policies of the New York City Board of Education. Inservice teacher training was usually limited by considerations beyond the power of project staff to change. School administrators tended to be receptive to the program because they hoped that it would help to imporve the school's reading scores. However, the project's inputs carried no authority of responsibility for teacher behavior, with the advantages and disadvantages of this arms-length variety of curriculum development and teacher retraining.

A laboratory situation within project control might have facilitated the process of implementing the new curriculum and bringing it into being, with better conditions for evaluation. Working in the reality of schools in slum neighborhoods, however, guaranteed that every possible deterrent would be encountered and that there would be no false assumptions about what the major barriers are to curriculum change in young children's education in the inner city.

Rationale

Since a more detailed statement will shortly be available, a brief summary here will indicate the rationale for the curriculum that has been developed and tested in Project CHILD. Like many researchers who were reading the literature on the disadvantaged when Project Head Start was initiated, we sketched a model of the young disadvantaged child who was the target of the new curriculum with more deficits than assets. Having worked with slum schools before, project staff knew that these children were verbal and talkative unless considerable constraint was exercised. But the lacks were endless - lack of experience of all kinds headed the list, with serious lacks in auditory discrimination, language development, and cognitive functioning.

Lack of experience was interpreted by some researchers to require endless trips to the zoo, museums, stores, and the like. Lack of experience was seen as the cause of small vocabularies, retarded language growth and a slow pace of cognitive growth. Learning to know these children and their families quickly shattered the notion that there was any lack of experience. Too much experience perhaps, or too little protection from some of life's meaner brutalities. Their experiences were often different from those familiar to middle class white children. However, as Sylvia Ashton-Warner found that her "organic" curriculum could be built out of the high affect words for individual children, all personal experience seems to afford the meanings and the events upon which academic skills can be built. Just as linguists such as Baratz and Labov find these children linguistically different, but not linguistically inferior, it was found that these children were experientially different but that all had had personal significant experiences out of which cognitive growth could be expected to flourish. Baratz, 1969, Labov, 1969)

In addition to linguistic and experiential differences from the usual middle class white population, the literature certainly indicated poorer auditory discrimination. The recent Baratz study cited above found that non-standard dialect speakers have better auditory discrimination for their own dialect than for standard English while white speakers of standard English are more skillful in their own dialect than non-standard dialects. The children in Project CHILD were tested by speech consultants, whose findings were in the same direction, stressing especially the interference that non-standard dialects pose to getting good scores on the Wepman Auditory Discrimination Test. (Robison, 1968).

Poor auditory discrimination suggests sensory deficiency. It is true that medical reports on Project Head Start groups indicated that these children appeared to have a higher incidence of untreated congenital and physical defects than other groups of children. However, there has never been any indication that large proportions of these children have sensory deficiencies. Sensory functioning can also be affected by cognition and learning, of course. A clear example would be the ability of the trained musician to delineate melodic pattern in unfamiliar musical forms when untrained listeners are unable to discern this pattern and "hear" only noise. Similarly, a child who has learned to read in Spanish may have no visual defects but be unable to read in English. What he has learned is one symbol system rather than another. Auditory discrimination skills seem to be of the same order, in that they can be tested better with the oral symbols the child has learned than with a different system which he has not learned. This is not to preclude other types of sensory skill testing, of course, which may focus on such variables as rate of learning of a new symbol system. In the latter case, no researcher would compare a novice, to whom the symbol system is unknown, with an experienced user of that system, on rate of learning.

Lack of auditory discrimination skills was thus reinterpreted to mean lack of familiarity with many of the phonemes and structures of the standard English dialect by speakers of non-standard dialects. The aim of the language program was to help children become bi-dialectal and to develop skills of flexible use of either dialect in appropriate situations. Children were not required to give up their native dialect, which has great importance in the child's communication system with his family and friends. Since the child continues to live with his family, it would create unnecessary tensions if the child's ability to maintain this language was constrained or destroyed. Fortunately, it was not possible to destroy the child's native speech, since he was in school for so few hours of the day. Questions raised about this rationale of continuing bi-dialectal speech are best brought up at later stages of the child's schooling. A hopeful thought is that, as the child grows older, if he chooses to drop out non-standard dialect forms because of college or career aspirations, he can do so at far less emotional and social cost than the four or five year old.

A basic assumption was made that reading instruction would probably be more efficient in standard English than in non-standard forms because the latter lack grammars, literature, and even token acceptance in most schools. Hence, the language program concentrates on supporting the child's natural speech development without correction or value judgments, in addition to helping him acquire receptive and productive forms of the standard English dialect. Three basic goals in language development in the CHILD curriculum relate to vocabulary acquisition, cognitive uses of language, and uses of symbolic forms of language, primarily writing and reading.

Slower rates of cognitive growth usually associated with low SES and with IQ scores could also be factors of experience, if experience is broadly defined to include the physical, intellectual, social and emotional environment of the child. The Hess-Shipman studies have contributed some valuable indications of differentiation in maternal teaching styles by socio-economic status. (Hess and Bear, 1968). Although structure models were not based on this source, there are many respects in which they could have been.

Teachers of young children were being harried by administrators and parents to introduce "structure." Play was often viewed as a non-instructional waste of children's time in school, by parents and teacher aides who had become teaching assistants. Parents in poor neighborhoods demanded early reading instruction, and they seemed to view all school activities from the same point of view, that is, the contribution to the improvement of reading. This social context can not be disregarded by researchers who are aware that children's motivation in school is so largely colored by parental attitudes. A typical attitude was expressed by one mother, explaining why her child was absent from the prekindergarten class on the previous day when it had been raining, "It don't pay to get wet, just to get him here to play." The parental stress on reading seemed to reflect both the great anxiety parents had for children to do well in school and their own insecurity in the academic learning sphere.

The stress on reading instruction in slum schools clearly points to various forms of cognitive and symbolic input which need more school emphasis because they receive less home emphasis in poorer neighborhoods. If parents are less aware of children's learning opportunities through play, they are very conscious of the need for more symbolic learning opportunities which seem crucial to academic success.

Play must continue to hold a secure place in the preschool curriculum, in the opinion of the present writer. Psychoanalytic theory can be cited for the importance of discharge of tension and for internalizing and restructuring experience through fantasy and playful manipulation. (Frank, 1955; Peller, 1954). Piaget offers even stronger theoretical support for play as the child's path toward development of such basic cognitive structures as representation and symbolic forms of dealing with the world of objects and ideas. (Piaget, 1952). Piaget's view of play as the extreme of assimilation, while necessarily involving distortion and fantasy, stresses its unique function in shaping personal meaningfulness, and in providing the possibility for various forms of cognitive functioning at a stage when more logical forms have not yet developed. Piaget points out that so much of the young child's behavior is playful because at these early years imbalance rather than equilibrium characterizes early cognitive development. If the child is essentially a playful creature, as most observers have noted, his playfulness must be a considerable asset to his development, whether it furnishes the basis for his drive for competence (White, 1955) or whether it offers an emotional safety valve, or whether it furnishes one of the most powerful learning tools available to the young child.

If play could be retained in the curriculum, as one of the most important spontaneous learning tools available to the child, it was thought that structure could be added to help the child map more clearly various new learnings through experiencing teacher modeling, demonstration, and direct instruction in new skills, and in self-checking procedures. The polarity of play vs. structure was discarded as a false set of alternatives. As a protection to the young child's normal psychosocial development, the essential feature of choice was added. Children could choose play or direct instruction, within specified limits, but the program required teachers to encourage a great deal of self-selected play for relatively long periods of time.

O. K. Moore's theory that games, puzzles, and aesthetic experiences are the folk models, which children use to play their way to learning theories, and to become "man the theorizer," suggested imaginative games as vehicles for teacher tutorial work with children. (Moore, 1965). It was hypothesized that the social interaction of games, whether teacher-child or child-child, as well as the cognitive content, whether number equivalence or pattern copying, would provide substantial inputs of an intellectually stimulating character. Within the games contexts, teachers could at the same time alert children to specific characteristics of various materials or tasks, while they practiced cognitive uses of language for decoding and encoding.

Piagetian theory offers the rich specification of normative cognitive development. (Piaget, 1928, 1947). Against this yardstick individual children's progress and pace of growth can be assessed. The conviction that environmental inputs are insufficient for young children in the inner city is fed by the less mature forms of cognitive functioning such children evidence on Piagetian-type tasks. (Almy, 1966; Kohlberg, 1968). If these children have cognitive lacunae, it has yet to be proven. It can more readily be shown that these children have little practice in all kinds of cognitive tasks, games, and puzzles, with knowledgeable adult guidance and intervention. Therefore, Project CHILD incorporated active forms of children's self-chosen play with selected materials in school, and a series of structured tasks and games, where teacher modeling, demonstration, and direct instruction could lead to children's independent and playful use of the games and tasks, as they internalized, generalized and reformulated these as their own.

Curriculum sources for excitement, variety, and solid academic substance were sought in the disciplines of knowledge, content areas which offered significant learning opportunities, vocabulary building opportunities, and the diversity needed for practicing the same basic cognitive skills in contexts increasingly different from the initial ones. Scholars assisted as consultants in the selection of content from each discipline selected for incorporation in the curriculum design. Project staff formulated behavioral goals in each content area, identifying those which seemed to offer the most immediate possibilities for early learning in school.

Teachers who worked with Project CHILD were asked to collaborate in testing and improving the structure models, and the teachers made many valuable contributions to the teaching suggestions. Project staff, however, are responsible for most of the curriculum including the revisions. The forthcoming monograph includes a detailed description of the program, which has strong emphases on language and cognitive development and includes some skill learning in specific content areas. Language development is channeled through games and structured experiences, in addition to the use of electronic equipment and language-stimulating experiences. (Bellugi and Brown, 1964; Ervin, 1966 and Cazden, 1968).

Some Findings

A question which needs more rigorous treatment in all new programs is how much of the intention is actually realized in the classroom and experienced by children. Without a corps of observers and good instruments this is a difficult question to answer. The more precision with which the program is delineated, however, the more possible it becomes to find some answers.

The eclectic nature of teacher adaptation to individual children and teacher tendencies to graft new ideas onto old programs often defy program description. Results in terms of children's behavior can not be interpreted without better data on the actuality of the program being assessed. During the 1969-70 academic year, with a group of teachers in their second year of the CHILD curriculum, it is hoped that some objective procedures will yield informative data on the extent to which the CHILD curriculum is being realized in the classroom.

Evaluation Emphasis. Through June 1969, during the period in which the curriculum was taking form and undergoing constant revision based on project staff and teacher feedback, the emphasis in the evaluation plans was largely on problems of teacher retraining, program realization and short-run effects on children, such as interest, motivation, and responses to new classroom activities. It was assumed that the program evaluation would wait until major revisions were completed, and equally important, until teachers could bring the program into being in some reasonable facsimile to its written dimensions. Both of these conditions should be met during the current 1969-70 academic year.

Teacher Reaction. The Project CHILD curriculum evolved during the 1965-69 period in a series of different schools and with different teachers. The 1966-67 year was actually the first year of work with teachers in classrooms, and during that year the staff concentrated largely on language development. Teachers inserted parts of the new program into spare moments of their regular schedule. During 1967-68 a complete curriculum design was tested with 4 pre-kindergarten teachers in 2 schools, and in the following year a revised version of this complete curriculum was tested in a different group of schools. A further revision is in use this year.

Various attempts were made to assess the extent of actual program implementation by each teacher. In 1966-67, Project staff rated each of 7 teachers on 9 items which had been stressed in that year's program, in the form of a gross congruence index, as follows:

	Rank number of checks		
	1 (low)	2	3 (high)
Teachers: 1	4	3	2
2	0	4	5
3	4	4	1
4	6	3	0

	Rank number of checks		
	1 (low)	2	3 (high)
Teachers: 5	0	8	1
6	4	3	2
7	0	4	5

Of the 63 ratings (7 teachers on 9 items each), 18 or 29 percent were low, 29 or 46 percent were medium, and only 16 or 25 percent were high. Thus, fewer than half of the ratings indicated moderate congruence, and only a fourth indicated high congruence. Since the ratings referred to a program which was only a small part of the daily schedule that year, the indications were that the teachers were not realizing most of the program in practice.

In the 1967-68 academic year, with a full program to be implemented, teachers were asked to check weekly lesson plans to indicate whether suggested activities had in fact been initiated. Reports for the first 9 weeks were incomplete, but 13 weekly reports were completed for weeks #10 through 22. Based on these reports by 4 teachers, a congruence index yielded scores of 60, 70, 80, and 90, with a mean of 75. Project staff regarded these reports as greatly overstating program implementation, although the relative standing of the teachers appeared to be correct. In fact, staff observations suggested that in only 1 of the 4 classrooms did program implementation approach the index of 70, with the others considerably less than 50 percent.

Other sources of teacher reaction to the program have been interviews by a project staff member with each teacher, tape recorded, following a list of open-ended questions, teacher responses to a list of 22 open-ended questions, and teacher responses to a semantic-differential type of form. These teacher reactions, which are reported in detail in the monograph soon to be released, have generally been strongly positive, with many detailed observations or suggestions for revision. During 1968-69, only one of sixteen teachers made a completely negative response. Teacher insistence on evaluating program details and on adapting or changing them in classroom contests is an important source of protection of the classroom from impositions which may be more harmful than beneficial. If teachers can be helped to use more objective criteria than they do now, to evaluate specific program effects on children, or on themselves, great possibilities could be explored for imporved educational experiences in school.

Teachers varied considerably in their education, experience and teaching styles before they agreed to participate in implementation of Project CHILD, and their perceptions and implementation of the new program varied just as widely. Predictably, there was most teacher resistance to the use of checklists and other simple devices for recording their own or children's behavior. Despite this resistance, most teachers initiated the use of recording procedures which, for a few teachers, became elaborate and extremely detailed. Project staff developed a revised system of simple checklists which most participating teachers now use.

Features of the new program which encountered considerable resistance from some or all teachers were the following:

1. Weekly diagnostic tests in specified sequence. Teachers found it difficult to change roles from teaching to testing, and they evidenced discomfort when the tests revealed children's inability to make responses which were assumed to have been learned.

2. Introduction of structure models at specified times and in a stated order. Teachers resisted suggestions for pacing the program, even though they were requested to maintain the pace only for children they deemed ready for new challenge and to adapt the pace to children's individual needs. Since the program's emphasis is on individual progress, specified weekly lesson plans have been eliminated, and the current

program makes no suggestions to teachers about pacing.

3. Tutorial teaching based on written structure models. Teachers found it difficult to change classroom arrangements and scheduling in order to free themselves and their aides for Montessori type of instruction of one child at a time. Kindergarten teachers found this change more difficult than prekindergarten teachers, usually because their classes were larger and they were wedded to total group instruction for a large part of the school session. Since the tutorial feature could not be discarded without drastically changing the program's main features, a great deal of teacher retraining time was spent on classroom management and discipline problems.

4. Respecting children's choices of involvement in play or in structured tasks. Teachers found it difficult to believe that children know best when they are ready to be involved in any specific type of learning task, or for what specified length of time. A great deal of teacher retraining will continue to be necessary before this feature of the program is fully implemented in most of the participating classrooms.

Evaluation of Children's Progress. During the 1967-68 year's work with 4 prekindergarten classes in 2 central Harlem schools in New York City, children gained about 15 points on the Peabody Picture Vocabulary Test, achieving a mean IQ posttest score of 86, and a standard score on the Goodenough Draw-A-Man test of 87. (Robison, 1968). While neither of these tests is regarded as an adequate criterion of the new curriculum design, these scores seem to support the evidence that these children did in fact belong to the target population of "disadvantaged" young children the project sought to reach. Of the 4 teachers participating in the project during the 1967-68 year, there was only one teacher who was participating for a second year and her group reached a mean posttest IQ score on the PPVT of 91.9, and a standard score on the D-A-M of 98.1. While these scores are based on small numbers, they suggest the possibility of stronger impact on children of greater teacher expertise in an unfamiliar program, although these tests do not reflect progress in the specific goals of the program.

Some data for 1968-69, this past year, are given in Tables I and II. The comparison group had some important differences from the classes using the experimental program, but in the turmoil of the teacher strike in New York City during the past year, opportunities were drastically curtailed for a selection of a matching group. In fact the attenuated school year did not offer an adequate test of the new program. Not only were 36 school days lost due to the teacher strike, but resulting school-community tensions in the ghetto schools presented some formidable barriers to the new program.

Translating the raw scores on the PPVT on Table I into IQ score equivalents, the mean posttest scores were as follows:

	Experimental	Comparison
Pre-Kindergarten	79	96
Kindergarten	88	89

The posttest D-A-M standard scores clustered around 85, with the comparison prekindergarten group highest at 91. The comparison school had somewhat higher ages in months than the experimental groups, only one month older for the pre-kindergarden group but four months older for the kindergarten groups. The age differences are differentially reflected in the standard score equivalents.

On the new Child Behavior Test, constructed by Professor Herbert Rusalem of Teachers College, Columbia University, pretest and posttest difference scores for experimental and comparison groups did not reach statistical significance, although, as shown on Table II, most differences favored the experimental program. Since the experimental program was realized to a minor extent in most of the participating classrooms, it is possible that very different results may be achieved this year. It is hoped that the more tranquil atmosphere prevailing in New York City schools during 1969-70 will permit participating teachers to achieve the changed behaviors and the program which the written curriculum design attempts to map in detail.

Table I

PEABODY PICTURE VOCABULARY TEST, DRAW-A-MAN TEST, CHILD BEHAVIOR TEST:
Means and Standard Deviations, by Grade Level, Treatment, and Age in Months, Pretest and Posttest Scores, 1968-69, New York City[1]

		Grade Level and Treatment			
		Prekingergarten		Kindergarten	
Test Scores		Experimental (n=21)	Comparison (n=19)	Experimental (n=104)	Comparison (n=34)
PPVT					
Pretest:	Mean	30.3	31.2	37.0	45.1
	S.D.	13.4	11.5	13.7	11.3
Posttest:	Mean	33.8	42.5	43.0	49.9
	S.D.	14.2	10.8	12.7	9.1
D-A-M (Standard Score)					
Pretest:	Mean	82.4	83.1	85.8	84.5
	S.D.	21.1	20.1	13.8	13.2
Posttest:	Mean	84.9	91.4	84.4	87.6
	S.D.	22.2	18.1	11.9	12.9
CBT [1]					
Pretest:	Mean	25.3	19.6	33.8	39.6
	S.D.	11.1	9.1	12.0	9.9
Posttest:	Mean	41.0	32.1	44.9	49.3
	S.D.	12.0	10.3	10.2	8.2
Age					
Mean no. of months		51.2	52.2	61.9	65.8
	S.D.	12.2	2.6	6.9	3.9

---

[1] Maximum possible score = 72.

Table II

CHILD BEHAVIOR TEST: RAW SCORES AND SUBSCORES
by Grade Level and Treatment, Pretest, Posttest and Difference Scores
1968-69, New York City[1]

	Grade Level and Treatment			
	Prekindergarten		Kindergarten	
CBT (Raw Scores)	Experimental (n=21)	Comparison (n=19)	Experimental (n=104)	Comparison (n=34)
Pretest				
Total Score	25.3	19.6	33.8	40.0
Subscores:				
1. Language	12.4	11.8	15.9	18.6
2. Reading and Writing	3.1	1.5	3.9	4.1
3. Patterning and Classification	4.1	2.1	5.6	7.0
4. Mathematics	5.6	4.2	8.2	9.8
Posttest				
Total Score	41.0	32.1	44.9	49.3
Subscores:				
1. Language	18.0	18.2	19.8	21.9
2. Reading and Writing	5.9	1.8	5.8	6.4
3. Patterning and Classification	8.0	4.5	8.9	9.2
4. Mathematics	9.2	7.6	10.3	11.8
Difference (Posttest Score minus Pretest Score				
Total Score	15.8	12.5	11.1	9.3
Subscores:				
1. Language	5.6	6.4	3.9	3.3
2. Reading and Writing	2.8	0.3	1.9	2.3
3. Patterning and Classification	3.9	2.4	3.3	2.2
4. Mathematics	3.6	3.4	2.1	2.0

---

[1] Source: An achievement test of 72 items constructed by Professor Herbert Rusalem of Teachers College, Columbia University, based on the CHILD written curriculum.

Bibliography

Almy, Millie. *Young Children's Thinking*. N.Y.: Teacher's College Press, 1966.

Baratz, Joan. "A Bi-Dialectal Task For Determining Language Proficiency in Economically Disadvantaged Negro Children." *Child Development*: Vol. 40, No. 3, Sept. 1969, pp. 889-901.

Bellugi, Ursula and Brown, Roger, (Eds.). *The Acquisition of Language*. Monographs of the Society for Research in Child Development, Serial no. 92, 1964, Vol. 29, no. 1.

Cazden, Courtney B., "Some Implications of Research on Language Development for Pre-School Education," in Robert D. Hess and Roberta Meyer Bear, (Eds.) *Early Education, Current Theory, Research and Action*. Chicago: Aldine Publishing Co., 1968, pp. 131-142.

Ervin, Susan. "Imitation In Children's Language," in Eric Lenneberg (Ed.), *New Directions In The Study of Language*. Boston: The MIT Press, 1966.

Frank, Lawrence K. "Play in Personality Development." *American Journal of Orthopsychiatry*: Vol. 25, 1955.

Kolberg, Lawrence. "Early Education: A cognitive-Developmental View." *Child Development*: Vol. 39, No. 4, December 1968, pp. 1013-1062

Labov, William. "The Logic of Non-Standard English." To appear in *Georgetown Monograph Series On Language and Linguistics*: Monograph No. 22, 1969.

Moore, O. K., "The Responsive Environments Project and the Deaf," *American Annals of the Deaf*: November 1965, Vol. 110, No. 5, pp. 604-614.

Peller, Lilli E. "Libidinal Phases, ego development and play." *Psychoanalytic Study of the Child*: 1954, pp. 178-198.

Piaget, Jean. *The Child's Conception of the World*. N.Y.: Harcourt, Brace, 1928.

Piaget, Jean. *Play, Dreams and Imitation in Childhood*. N.Y.: W. W. Norton & Co., 1952.

Piaget, Jean. *The Psychology of Intelligence*. London: Routledge, Kegan, 1947.

Robison, Helen F. "Project Child: Monograph," in process.

Robison, Helen F. "Data Analysis, 1967-68," Teachers College, Columbia University, November, 1968.

White, Robert W. "Motivation Reconsidered: The Concept of Competence," *Psychological Review*: Vol. 1, 66, no. 5, 1955, pp. 297-333.